SCIENCE

AEROSOL AGE

THE MAGAZINE OF PRESSURE PACKAGING

Aerosols at Lake & Fish

New Flying Insect Control Device

Aerosols in Norway

International Aerosol Laboratory

Face Unveils New Plant

New York SCC Meeting

MARCH, 1959

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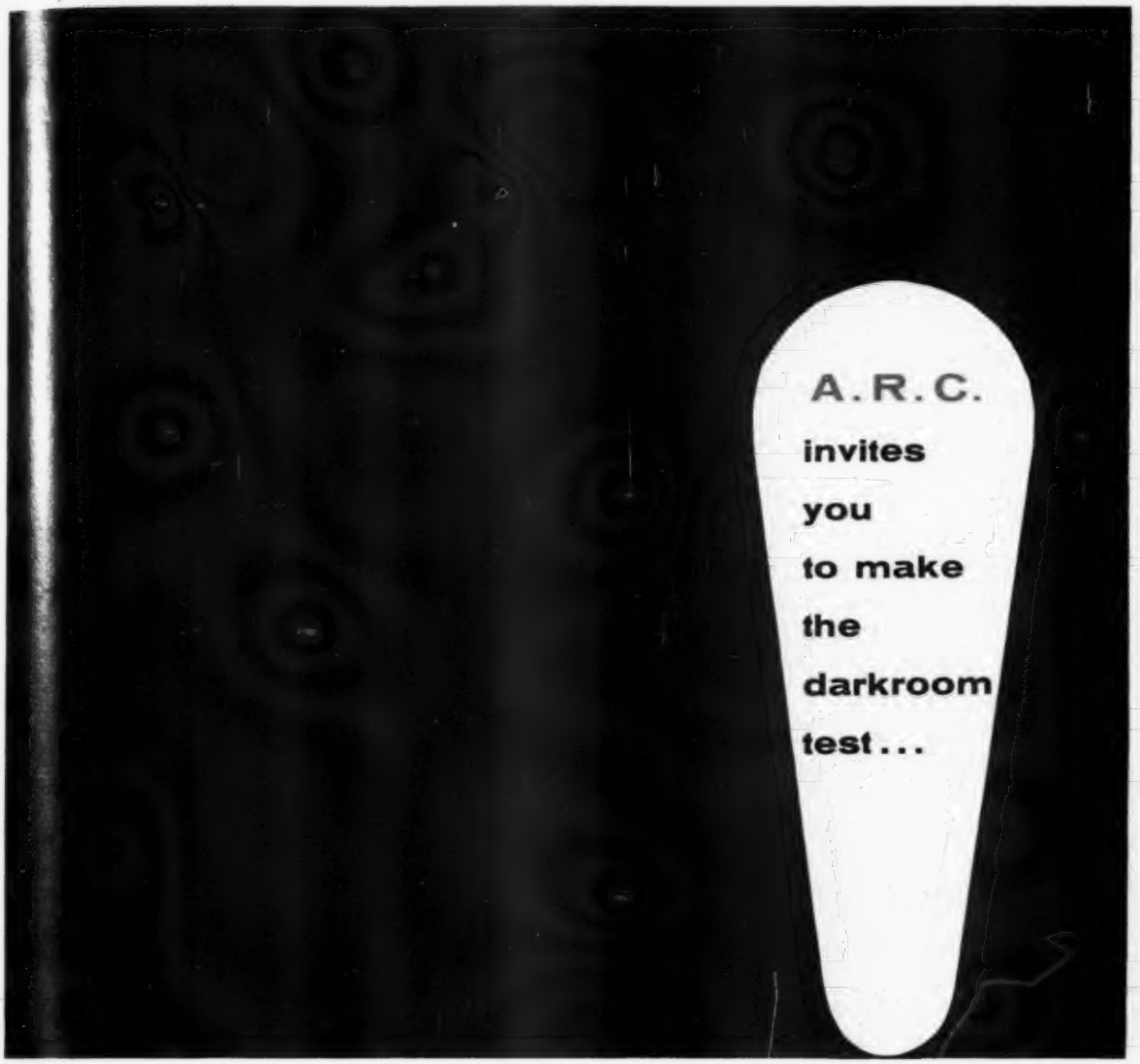

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WILLIAM J. FRITZ was born and raised in Trenton, N. J. Following a hitch in the Navy during World War II, Bill attended Indiana University where he received his bachelor's degree in chemistry. After graduation, Bill gained experience in both industrial sales work and quality-control testing before joining Du Pont. He came to Du Pont in 1957, and was assigned as a research chemist with the "Freon" Products Division. At present, Bill directs the use of analytical devices such as the vapor phase chromatograph and other instruments in the "Freon" Products Sales Service Laboratory at Chestnut Run near Wilmington.

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THIS MONTH'S COVER

Typical of the line of fine toilet ods being packaged in aerosol m by Lehn & Fink Products, oomfield, N. J., is this "Volt- e" perfume. Packaged in a chford dispenser unit with a chford brass overcap, the per- me is dispensed through an nson valve from an Emson ainless steel container. More on Lehn & Fink's aerosol activities appears on page 16.

MARCH, 1959 VOL. 4, No. 3

AEROSOL AGE

The magazine of pressure packaging

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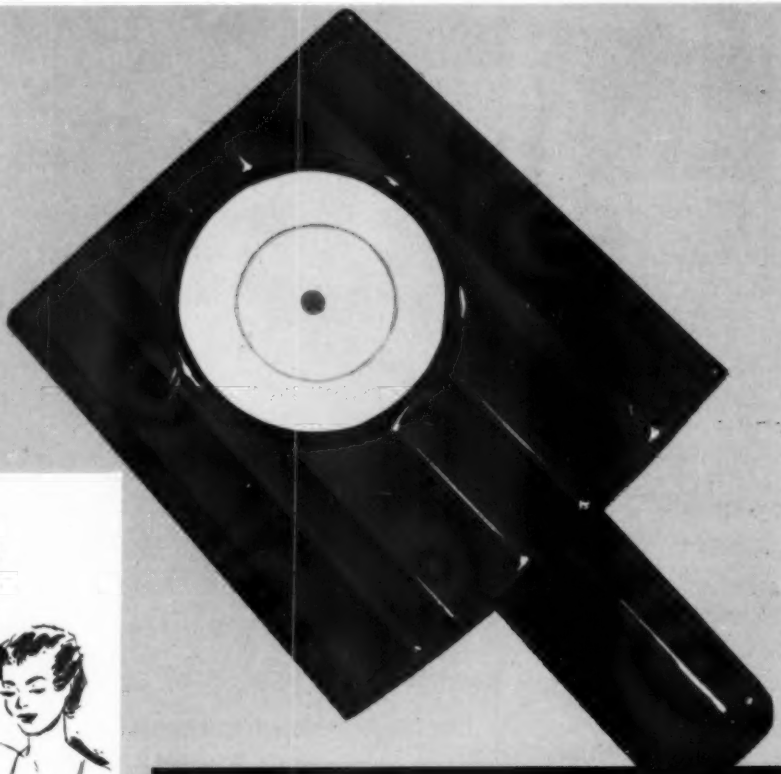

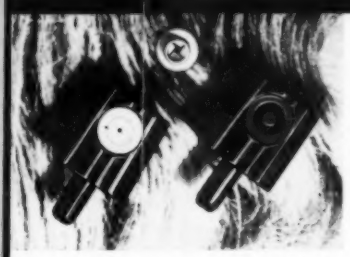

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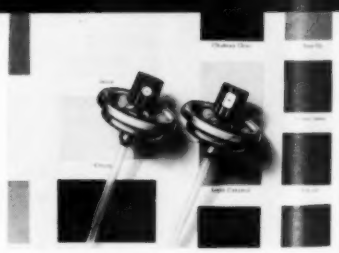

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INDUSTRY CALENDAR

Chemical Specialties Mfrs. Assn., Meeting of Board of Governors and Administrative Committees, Belle-View Biltmore Hotel, Belle Aire, Fla. .....March 22-25

Pharmaceutical Manufacturers Association, Annual Meeting, Boca Raton Club, Boca Raton, Fla. April 1-3

American Chemical Society, 135th National Meeting, Boston, Mass. .....April 5-10

National Sanitary Supply Association, 36th annual convention and trade show, Conrad Hilton Hotel, Chicago .....April 12-15

National Packaging Show of American Management Association, International Amphitheater, Chicago, April 13-16; packaging conference, Palmer House, Chicago..April 13-15.

Society of Cosmetic Chemists of Great Britain, British Congress of Cosmetic Science, London, England. April 15-17

EUROPAK 1959, 5th International Packaging Exposition, Amsterdam, Netherlands .....April 21-28

Society of Cosmetic Chemists, Commodore Hotel, New York, N. Y. May 7

Toilet Goods Association, 24th annual convention, Waldorf-Astoria, New York .....May 12-14.

Institute of Food Technologists 19th annual meeting, Bellevue-Stratford Hotel, Philadelphia, Pa. May 17-21

Chemical Specialties Manufacturers Association, 45th Mid-year meeting, The Drake Hotel, Chicago May 18-20

International Symposium on Gas Chromatography, of The Instrument Society of America, The Kellogg Center for Continuing Education, East Lansing, Mich...June 10-12

European Federation of Aerosol Associations, first meeting (at International Congress of the Chemical Industry), Paris, France..June 26

National Agricultural Chemicals Association, Sheraton Lick Hotel, French Lick, Ind. .....Oct. 21-23

Packaging Machinery Manufacturers Institute, annual show, New York Coliseum, New York..Nov. 17-20

Toilet Goods Association, winter meeting of Scientific Section, Waldorf Astoria Hotel, New York Dec. 1

Chemical Specialties Manufacturers Association, 46th annual meeting, Mayflower Hotel, Washington, D. C.....Dec. 7-9

In the Spotlight this month

- **The Approach to Aerosols at Lehn & Fink** . . . A major marketer of toilet goods and ethical drugs puts substantial backing behind aerosol research and development. The corporate "chain of command" is explored in an article beginning on page 16.

- **Pace Unveils New Aerosol Plant** . . . A picture report on the official inauguration of a new aerosol plant—always a special event in a new industry—appears on page 19.

- **A New Method of Flying Insect Control** . . . John Odeneal, well known authority on aerosol insecticides, writes about a new automatically-timed aerosol dispenser, which, with no servicing, operates for 34 days. In an article on page 20, he outlines how it works, and its potential for long-range insect control.

- **Aerosol Store in Berlin** . . . An enterprising German chemist establishes what is probably the first thoroughly aerosol-oriented retail store in the world. Article and photographs appear on page 24.

- **International Aerosol Laboratory** . . . The U. S. visit of a top-flight German chemist reveals the establishment of the first international aerosol quality control and research laboratory. Interview on page 28.

- **Aerosols in Norway** . . . The country, which can claim the first real aerosol (as we know it today), is the home of one of Europe's most enterprising custom fillers. Components and materials procurement, future "best sellers" and other pertinent aerosol data appear in story on page 22.

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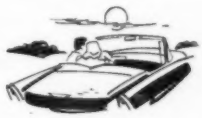

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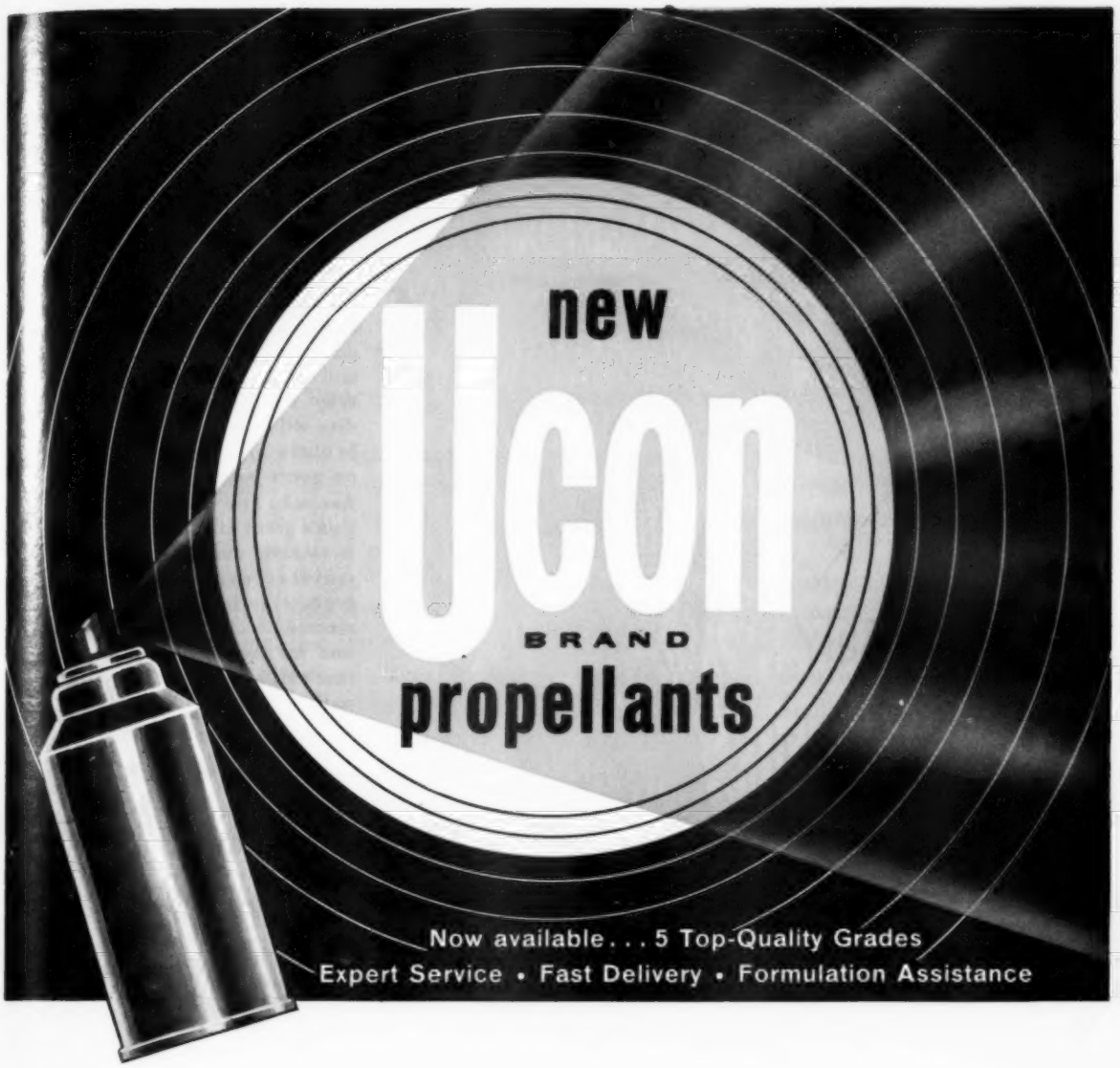

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UCON Propellant 22 Monochlorodifluoromethane
UCON Propellant 113 Trichlorotrifluoroethane
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metered drop for such cosm tic
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creams, facial creams, depilato ies,
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EDITORIALS

D nger from a New Direction . . .

lthough a sincere effort has been made to keep th column from becoming a monthly purveyor of oom, of necessity it has often been devoted to th somewhat somber aspects of product safety . . and to the possible consequences should this vit l area be neglected by the aerosol marketer.

Now, only a few months after successfully answering its hair spray critics, the aerosol industry is faced with a new phantom—one which just recently made its first appearance in Philadelphia. This time the product under attack is an aerosol insect repellent: In a happening highly reminiscent of the beginnings of the St. Louis hair spray story (first reported in medical literature a year ago), the death of Robert Greist, an 11-year-old Philadelphia boy, is attributed by his parents to an insect repellent in aerosol form (containing diethyl toluamide as the active ingredient). The boy's father told a reporter of the *Philadelphia Inquirer* that "he had been told by toxicologists that the spray contains a toxic agent capable of producing the 'blood pattern' which killed his son."

The *Inquirer* story (Nov. 16, 1958) made no mention of other possible contributing factors, but boldly stated: "The spray was absorbed into the boy's body with continuous use and, according to the parents, destroyed the boy's platelets." Ac ording to Mr. Greist, the entire family had suf ered ill effects from prolonged use of the spr y during the summer of 1958, and he charged tha absorption into his own system had caused a her orrhage of the left eye. He further told the *Inq irer* reporter that the USDA had promised hin a "re-analysis" of the product.

bout here it should be re-emphasized that all of t e above conclusions were issued by the parents of the dead boy, and that the *Inquirer* account identifies neither the doctor, nor the "toxicologists" involved. The coroner's report lists the cause of death simply as "aplastic anemia", and, according to our information, says nothing about contributory causes.

But every newspaper report of this type signals a distinct threat to future prosperity of a particular product type. Word-of-mouth rumor, built on a newspaper account of this type could be devastating, at least in the local area involved. And if the doctor or toxicologists concerned should actually cite the aerosol repellent as being responsible for the "fatality", the repercussions could be similar to those following the hair spray article in the *New England Medical Journal*. Similarly, if the "re-analysis" by the USDA turns up new data on the toxicity of diethyl toluamide, it could throw a serious crimp into future aerosol repellent development.

It would be well also to remember that this time, instead of two women who weren't sure of the causes of their maladies, we are dealing with aggrieved parents, who feel certain that a promising insect repellent material was the cause of their son's death. Also, this time, the malady is a far more serious one, and cannot be cleared up by simply ceasing to use the product.

To get an idea of the seriousness of "aplastic anemia", we checked the reference in volumes 1 and 2 of the "Illustrated Medical and Health Encyclopedia", edited by Dr. Morris Fishbein. The specific reference reads as follows:

> "Occasionally, the bone marrow stops almost entirely its production of all cells; this condition is called 'aplasia' of the marrow. A severe anemia develops, and the number of white cells and of platelets in the blood is likewise markedly decreased. Such a damage to the marrow may follow exposure to some chemicals (benzene and others), or when certain otherwise useful drugs are taken for a long time. Aplastic anemia may also be observed after extensive un-

(*Continued on Page* 58)

Lehn & Fink's Dorothy Gray Division has a line of three aerosol perfumes, "Nosegay," "Figurine," and "Voltage." All are packaged in a Richford case, with a Richford brass overshell and actuator. Stainless steel container and valve are by Emson Research.

Another Dorothy Gray perfume is "Aureate," which is packaged in a Bridgeport Brass case with an Emson Research stainless steel container and valve.

Dorothy Gray's cologne line packaged in Wheaton coat glass containers and uses Ri don valves, with overcaps Mack Molding.

The Approach to Aerosols at

Lehn and Fink

ONE important key to the recent success of cosmetic and proprietary pharmaceutical aerosols on the consumer market has undoubtedly been the enthusiastic acceptance of the aerosol concept by the management of the major marketers of these products. For the past three or four years the inherent commercial values of the pressurized packages have come to be well appreciated by everyone from the top executives to the newest laboratory assistant, and this has been manifested in the substantial backing given the aerosol staffs of these companies in the form of research facilities, top-flight personnel, resources for consumer studies, etc.

In fact, so successful has become the aerosol-minded cosmetic and proprietary pharmaceutical marketer—as characterized by Revlon, Avon, Fuller, Helene Curtis, Lehn & Fink, and many others — that slower moving firms have found themselves hard pressed to keep their heads above water. For instance the aerosol surge is making itself felt in every segment of the toilet goods industry, and with the submission of the major holdouts in the perfume industry last year, the last major stumbling block to full-scale aerosol dominance of the entire field appears to have been overcome.

But despite these successes, exactly what happens to a good aerosol idea in the impressive corporate "chain of command" in these major cosmetic and proprietary pharmaceutical marketing firms? Aren't there dangers that a sound product idea might be shunted back and forth enough until it is lost in the shuffle? How much time and effort does the marketer devote to aerosol development?

To find the answer to these and allied questions *Aerosol Age* last month visited the Bloomfield, N. J. plant of Lehn & Fink Products Corp. to talk to Dr. Robert F. Prindle, director of research, and Fred G. Taylor, group leader in charge of aerosol and packaging. During the past eight years, this company has developed a whole series of new and exciting aerosol products, and can boast of as high a ratio of aerosol-to-conventional product as nearly any other major marketer.

According to Mr. Taylor, Lehn & Fink is basically a "skin care house," and its product lines tend to be so oriented. It was because of this that the company's first aerosol product was "Dorothy Gray" spray deodorant, actually an aerosol version of a good-selling conventional product. This deodorant was first marketed in 1950 in an aluminum can, and was the first such aerosol product.

Lehn & Fink is now organized into three divisions and one subsidiary, called National Laboratories. These major divisions are Tussy, Dorothy Gray, and Lehn & Fink Division (the marketer of the famous "Lysol," "Etiquette" deodorants, and professional disinfectants). Each of these divisions markets a fairly varied line of its own, though the developmental and research work is done for the most part in the corporation's Bloomfield plant. However, the subsidiary, National Laboratories, does its own developmental work, with the parent company providing a consulting function in aerosol and similar specialized product development.

The corporation research department, which is under the direct supervision of Dr. Prindle, is actually a whole series of separate laboratories under one roof. There are completely equipped and separate sections for cosmetics, shampoos and bath oils, bacteriology, disinfectants and pharmaceuticals, a library, service laboratories, and a physical and chemical control laboratory. Also included is the aerosol laboratory, which has complete facilities for sample filling, accelerated and normal shelf testing, etc.

The birthplace of most of the aerosol product ideas is this aerosol laboratory or within a "basic research group," a working organization within the research department which is itself divided into cosmetic and pharmaceutical sections.

Since the company has such an extensive and varied product line to begin with, and such long-term aerosol experience, many of the new product ideas are simply the result of carefully conceived conversions of well established products to pressurized versions. Colognes, personal deodorants, and some creams, for instance, are examples of products, which, without too much alteration of the basic formulation can be adapted to present-day aerosol packages. But from within the confines of the research department have come a whole series of new and different aerosol products, of which probably the most striking is a deodorant-disinfectant developed by National Laboratories.

Altogether, the three divisions and

"Ogilvie Sisters" hair spray utilizes a Crown can and an Aerosol Research valve. "Aureate" cologne has a Risdon valve and Mack Molding overcap on a Wheaton bottle.

"Suntone" uses a Precision foam valve and Sterling Seal overcap on an American Can container. "Deodorant Atomist" is packaged in a Wheaton bottle and cap with a Risdon valve.

one subsidiary of Lehn & Fink have developed eight separate aerosol product types:

1. cologne (two divisions have products)
2. perfume (two divisions)
3. hair spray (all three divisions)
4. antiperspirant
5. brilliantine
6. deodorant-disinfectant
7. nitrogen-pressured sunscreen
8. nitrogen-pressured cold cream

Since Dr. Prindle took over as research director in 1954, the policy of the company on aerosols has been to try anything practical from a chemical, physical, and consumer appeal standpoint. However, ideas for new products are conceived not only by this research department, and from each of its separate laboratories, but also from a "new products department," which is actually a separate staff function and reports directly to the top levels of administrative management.

In this new products department, which is headed by Thomas S. Harrison (formerly of S. C. Johnson & Sons) the pulse of the buying public is measured. This department also has the important function of market research on new aerosols, and has at its disposal hundreds of retail demonstrators of both the Dorothy Gray and Tussy Divisions. For an informal testing of consumer reaction to, say, a new aerosol sunscreen, these demonstrators are given samples of the products to both test themselves and to "feel out" general consumer acceptance. For the more statistical evaluations sometimes required for the introduction of a major product line, the company sometimes employs professional marketing testing groups.

Dr. Robert F. Prindle

The working relationship between Dr. Prindle's and Mr. Harrison's departments is extremely close, and the heads of both departments report solely to the corporation's vice-president, Walter N. Plaut, for approval to go ahead with any particular product. Often the initial impetus comes from Mr. Harrison's group, which will present the research division with a conventional product or a raw idea and ask "Can this be packaged as an aerosol?" Similarly, Dr. Prindle's department will often come up with a sound aerosol idea and then ask the new products department: "Will it sell?"

Then too Mr. Harrison's department is charged with the responsibility of what might correctly be termed "intelligence" — that is, a study of the product activity of competitive marketers for possible trends in new product types. The research department, through Mr. Taylor's section, also surveys the aerosol field to make sure that good bets in new pressurized products are not overlooked.

After the aerosol idea is thoroughly explored (by Dr. Prindle's research staff for physical and chemical possibilities and by the new products section for sales potential) it is handed over to a special "task team." This team, consisting of a package engineer, and several chemists, is charged with evolving the idea into a production-ready package. The container, valve, propellant mixture, and working formulation are chosen. And finally, with the close cooperation of Mr. Taylor's section, a custom filler is chosen.

Since Mr. Taylor's section has already done the necessary laboratory filling, and since the company's chemists have thoroughly explored the chemical, physical and bacteriological problems, the custom filling assignment is based largely on quality and price. To maintain control over its many custom fillers, the task team assigned to the product writes exact specifications for both the supplier and the filler. For the custom filler

(Continued on Page 63)

The new filling line is inspected on "opening day". In the photo at right, from left to right are Richard Harwick, Gov. Boggs, Ira Wolfson, president, and Rabbi L. B. Gerwitz

Pace Unveils New Plant

THE new custom filling plant of Pace, Inc., Wilmington, was formally opened Jan. 30, with an address by Governor J. Cabel Boggs of Delaware. The new plant, which so far is made up of one modern high-speed pressure-filling line, is housed in a 20,000 square foot building adjacent to the New Castle County Airport in suburban Wilmington.

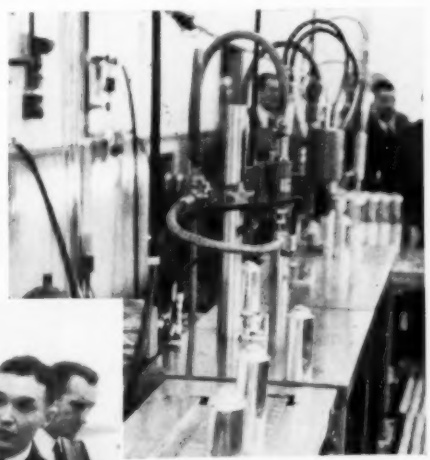
Hosts for the occasion, which drew nearly 100 people, were the three principal officers of Pace: Ira A. Wolfson, president; Richard Harwick, vice-president; and Seymour Levey, production manager.

Pressure filling equipment was supplied by JG Machine Works, New York, with a purger by Robert A. Foresman, Jr., Philadelphia. Labeler is by Chisholm-Ryder Co., Hanover, Pa.

The company is fully equipped to do package design, product formulation, market research, and filling of both aerosol and conventional products.

Abov Mr. Wolfson addresses the g hering at the formal opening o his company's new plant.

Below: Gov. Boggs and Rabbi Gerwitz listen as Mr. Wolfson explains the function of a face mask used to inspect cans coming out of the water bath.

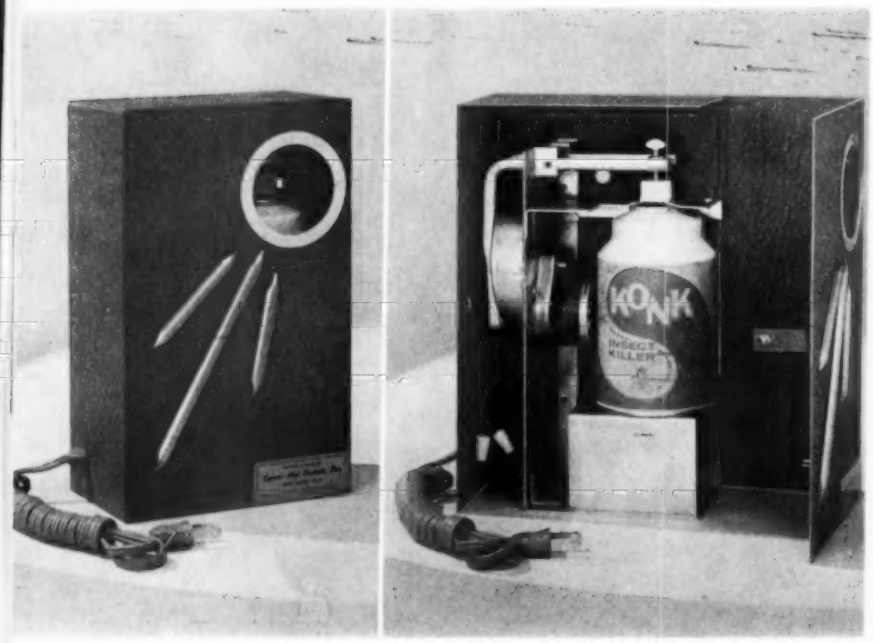


Above: a long view of the filling equipment. In the foreground is the JG gasser, with the beginning of the chain for the water bath just barely visible at the bottom of the photo.

A New Method of Control for Flying Insects

By John Odeneal
Fairfield Chemical Division
Food Machinery & Chemical Corp.
New York, N. Y.

Left: the Syncro-Mist automatic dispenser ready for operation. Spray is released through round porthole. Right: open view of this dispenser to show 12-ounce container of Pyrenone concentrate aerosol insecticide. Container is fitted with a VCA metered valve, and lasts for 34 days.



FOR years, the basic philosophy in insect control has been to start spraying when fly infestations became an annoyance. Now, with the development of the Pyrenone* Midget Aerosol (a concentrated combination of pyrethrins and piperonyl butoxide) in conjunction with a new automatic dispensing device developed by Syncro-Mist controls, Inc., a whole new approach to fly control has opened up. Areas can be given continuous as opposed to intermittent protection from insects.

Development of the new technique may be accurately described as an excellent example of cooperative engineering between insecticide producer, valve manufacturers and manufacturer of the new dispensing device. The result is a significant stride towards automation in insect control, since for many users, it promises to end the bothersome and time-consuming work of hand spraying.

Essentially, the "Syncro-Mist Automatic Dispenser" is a compact, electrically-operated unit housed in a durable steel case. Its internal timing mechanism automatically actuates a 12-ounce Pyrenone Midget Aerosol container housed in the unit, releasing 100 mg. of highly concentrated piperonyl butoxide and pyrethrins insecticide sprays at regular 15-minute intervals.

With the Syncro-Mist Automatic Dispenser, a 6000-cubic-foot area may be protected from flies, mosquitoes and gnats (including DDT-resistant strains) all of the time, not just during or shortly after spraying. By maintaining sufficient level of potent Pyrenone aerosol particles in the air at all times, any fly that enters the aerosol atmosphere will be killed. Actually, the fly helps kill himself, because the more the insect travels about the treated area, the faster it will pick up a lethal dosage.

The automatic dispenser unit measures 9½ inches high, 5¾ inches wide, 3½ inches deep and weighs 5½ pounds, including the Pyrenone base aerosol. The complete unit can be mounted on a wall, in or about

* Reg. U. S. Pat. Off. FMC.

entrances of barn or milking parlor, restaurants, kitchens, food processing plants, fur storage vaults, hospitals, grocteries, clothing warehouses or in the home, to name only a few applications. Once plugged into a standard AC electrical outlet, the dispenser requires no further adjustment other than the replacement of the aerosol container. One 12-ounce Pyrenone Midget Aerosol container lasts for 34 days of operation (on 24-hour basis).

For the past two years, Fairfield Chemicals Division of Food Machinery and Chemical Corp., New York, has been investigating the effect of aerosol metered dosages, of varying concentrations, for the purpose of determining the most effective levels needed for control of free-flying house flies. Work on the Pyrenone concentrate metered aerosol showed clearly that control of insects was due primarily to the method of application and the amount of insecticide dispensed. regardless of solvents, propellants or auxiliary components. Utilizing this information, it was possible to adapt the Pyrenone Midget Aerosol in a 12-ounce container with a 100 mg. metered valve to the new Syncro-Mist Automatic Dispenser.

Development of the proper insecticide concentrate was a major factor in the evolution of the Syncro-Mist Automatic Dispenser, since automatic emission of an effective, controlling spray required an insecticide that would provide high knockdown and kill, yet be economical to use and effective at small dosage levels.

Pyrenone concentrate met these conditions. Furthermore, though emitted continuously at regular timed intervals, Pyrenone spray has proven virtually non-toxic to humans and warm blood animals. Approved by the USDA on a "non-residue basis," it leaves no residues on meat or milk when applied to animals.

In addition, an intensive survey of the literature, followed by questionnaires to specialists throughout the U. S., disclosed that Pyrenone is highly effective against flies which, through the years, have developed resistance to other insecticides.

Equally significant are the economy and size factors. Fairfield laboratory evaluations revealed that a two-ounce Pyrenone concentrate in an aerosol container (fitted with a metered valve) is equal in effectiveness to standard 12-ounce aerosols — a ratio in effectiveness of six to one. Thus, a 12-ounce Pyrenone Midget Aerosol contained in the Syncro-Mist Dispenser proved equal to a standard five-pound aerosol insecticide. Operating in the Syncro-Mist machine, one 12-ounce Pyrenone Midget aerosol lasts 34 days, requires no attention during that period.

The combination of the insecticide concentrate in an automatic dispenser emitting a metered amount of spray enabled Fairfield experimenters to keep various levels of Pyrenone constantly in the air and to evaluate the effect on free-flying insects as they circulated about the atmosphere of treated area. It must be kept in mind, that this technique, although utilizing an aerosol, is not related in its method to the conventional methods of aerosol insecticide control.

With conventional aerosols, a dosage is put into the air sufficient to kill all of the insects in the area within approximately a 15-minute period. This dosage, as described on the usual household "bomb," is approximately five to seven grams per 1000 cubic feet. The end result of such treatment is that the area is cleared of flies during a 15 to 20 minute period, but as the particles settle, the degree of protection decreases. Once the spray has settled out of the air, the space once again becomes safe for insects to re-enter and cause annoyance. The method of treatment employed with the Syncro-Mist dispenser is such that the space treated is constantly protected from insects, through the timely release of the right number of particles of the right size to maintain a high and continuous level of efficiency. The treatment is not designed to kill within a short period of time, but to keep the space insect-free throughout the day. It continues to knock down and kill a major proportion of the insects as they continue to enter the treated atmosphere.

Based on this concept, control tests in a 6000-cubic-foot room were run in Fairfield Chemicals' laboratories using a Syncro-Mist Dispenser model. Results were as shown in Figure 1.

The objective of this investigation was to provide effective, inexpensive and continuous insect protection rather than the intermittent type of protection as provided by conventional aerosol insecticides. From the results in Figure 1, it was clear that suitably installed automatic dispensing devices of this type can effectively protect 6000 cubic feet of living space by constantly keeping the fly population at a low level during the operation of the machine.

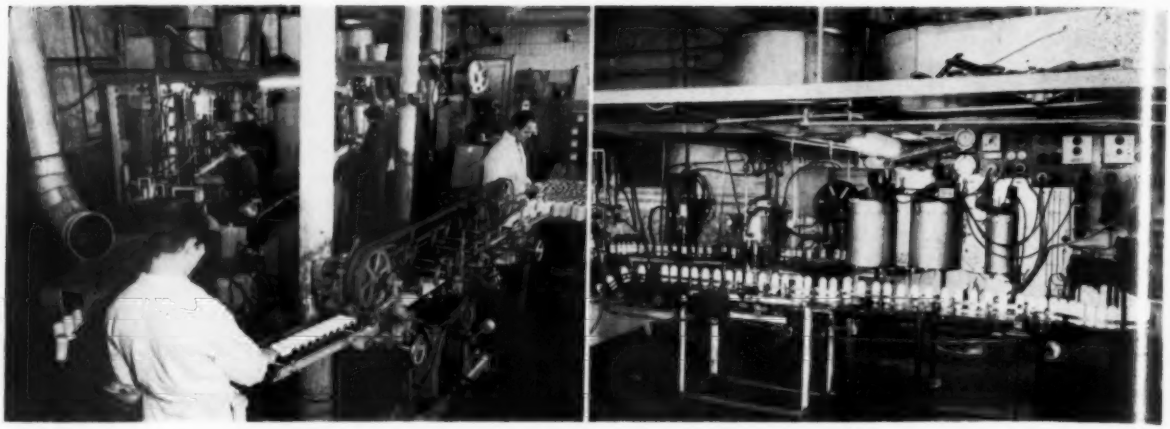
This type of installation lends itself perfectly to a monthly servicing arrangement. The devices could be installed in advance of the principal fly season so that the distributor would set up a regular monthly replacement

(*Continued on Page* 61)

FIGURE 1

Formula (Percent)	Room Temps. Degrees F.	Percent Knockdown After: 15 Min.	30 Min.	45 Min.	1 Hr.	2 Hr.	3 Hr.	Mortality Percent 24-hour
.9 Pyrethrins	76	10	47	75	84	93	—	100
9.0 Pip. But.	78	3	25	54	71	94	—	99
10.1 Ultrasene	76	3	22	58	72	94	—	99
80.0 Freon-12	84	6	28	57	79	96	98	98
	82	12	63	85	91	97	99	100
	83	14	59	88	91	99	100	100
	76	9	50	70	81	88	98	100
	76	8	49	76	90	95	97	100
	84	11	42	54	68	80	87	100
	83	11	42	65	75	79	88	100
AVERAGE	79.8	9	43	68	80	92	95	99

Note: Machine was in continuous 24-hour operation.
Initial reading noted was taken two hours after the machine was activated.



Left: containers being fed through a labeling machine. At right rear can be seen two filling lines. Right: a side view of the company's main cold filling line.

Aerosol Packaging in

NORWAY is widely acknowledged to have been the "cradle" of aerosol development. For it was in that country that the first practical aerosols were developed, packaged, and sold on the consumer market. As early as the late 1920's Erik Rotheim and his partner, H. Frode Mortensen, were actually working on an aerosol product as we know it today; and in 1933 the first such product was placed on the Norwegian consumer market.

Last month another distinguished Norwegian aerosol figure, Harry Holm, completed a month-long visit to filling plants and suppliers' laboratories in the East and Midwest. Mr. Holm is president of Aerosol Fylling A/S, Oslo, only custom filler in Norway and probably the largest in Northen Europe. Aerosol Fylling also has a plant in Copenhagen, Denmark, and can claim customers from among the major cosmetic, insecticide, and household specialty marketers in Europe and the U. S.

Mr. Holm's views on the future of aerosol development in Europe, and his knowledge of the history of European development in Europe, were the subject of an exclusive interview by *Aerosol Age* last month during the last week of his stay here. His comments on the early Norwegian aerosols were especially interesting:

"Last year one of our laboratory technicians obtained an aerosol paint can which had been packaged in 1937. Despite the fact that the product had stood on some shelf through winter and summer temperatures for a period of more than 21 years, it worked perfectly!

"It should be pointed out that these products were pressurized with propane gas, and were operated by simply turning the 'cover' (which was actually the valve) one-half turn in either direction. They were relatively simple in construction, and this may explain their long shelf-life.

"As you probably know, Erik Rotheim died during World War II, but his partner, H. F. Mortensen, is still living in Norway. Recently Mr. Mortensen visited our plant in Oslo and seemed overwhelmed by what the invention of Mr. Rotheim and himself had brought about. I rather think that possibly he feels a little bitter that, after all the work he did, he cannot share in the aerosol prosperity Europe and the U. S. are currently enjoying.

"I have long felt that the aerosol industry in both Europe and the U. S. should do something tangible to salute the memory of the prime inventor of the industry. One logical idea would be a sort of "Erik Rotheim Royalty Fund" to set up a technical scholarship program for aerosol study. For instance, if every aerosol company were to donate only one cent from every $100 it made, there would be enough to send at least two deserving students to a good technical college to become aerosol technicians!

It was pointed out to Mr. Holm that the recruitment of such a fund would be a massive undertaking itself, and after it was collected, there might well be controversy over which country would donate the "deserving" students; but he countered with the idea that it could actually draw the various aerosol industries together.

Above: Aerosol Fylling's toothpaste filling line. In the foreground the containers are being examined by quality control personnel.

Norway

Mr. Holm's own company is one of the most progressive and best equipped in Northern Europe. Using cold filling equipment developed and perfected by the company's own engineering staff, plus some new pressure filling equipment manufactured by Aeratom, Aerosol Fylling is packaging a wide variety of pressurized packages. These currently range from the now well-accepted (in Europe) insecticides, hair sprays, sun screens, fire extinguishers, room deodorants, shaving creams, etc. to the lesser known defrosters, toothpastes, paints, engine starters, window cleaners, rust preventives, and a host of new and exciting aerosol developments.

Paints, though they are becoming a "best seller" in the U. S., have made little real headway on the European market. According to Mr. Holm, however this is a temporary situation due to ineffectual consumer education and 1959 should be the first substantial year for paints in Europe. "For use of smaller quantities of paints, the aerosol can actually be as cheap (and much more time and work-saving) than conventional painting methods. The costs of the unused paint (which is usually thrown away), the brushes and brush-cleaning solvents, and other factors inevitably associated with conventional painting methods, all should contribute toward more and more use of the aerosol paint in Europe."

Since custom duties are not excessive into Norway, Aerosol Fylling probably uses more U. S.-made components than any other European filler. The company's containers come from the U. S. plants of Crown, American Can, and Continental Can, and nearly all of its valves from the U. S. plants of Precision, Seaquist, and Risdon. Of late Aerosol Fylling also has been using Italian aluminum cans for certain products for which the customer specifies aluminum.

The company's fluorinated hydrocarbon propellants come almost exclusively from Hoescht, leading German producer, though in the early years of the firm much DuPont "Freon" was imported from the U. S. Methylene chloride also comes from Germany. Nitrogen, however, is entirely domestically produced, since Norway is one of the leaders in European nitrogen production.

According to Mr. Holm, approximately four million aerosols were produced in Scandinavia last year, and he predicts that this figure will increase substantially in 1959. He reports that the consumers in these countries seem to be highly receptive to the aerosol idea, and Aerosol Fylling's plants in both Oslo and Copen-

(*Continued on Page* 62)

Some of the wide range of products presently being filled by Aerosol Fylling. A number of U. S. products can be distinguished in the photo, as well as some leading European brands.

Aerosol Retail Store in Berlin

By *Dr. Tom C. Clark*
Aerosol Age European Representative
Druk-Pak, Ltd., Zurich

Maximilian Woyda (right) explaining the working of an aerosol container to two of his customers. The shelves are lined with products from Swedish and German loaders.

WHAT is believed to be the only retail store in Europe, and possibly the world, devoted exclusively to aerosol products, is currently operating in the West Sector of Berlin. It was opened last spring at Uhland Strasse 79A, just off the famous Kurfurstendam, by Maximilian Woyda.

Finding a store location in still bomb-damaged Berlin was not easy, despite the fact that the rebuilding that goes on 24 hours a day has covered up many of the scars and empty lots. But by stopping occasionally for directions I was able to locate the shop quite easily. It is in a good retail location and is stocked principally with paint products of the Aerosol Packing Co. of Stockhom, one of Sweden's largest loaders. The paint line has since been expanded to include air fresheners, insecticides, and a nitrogen-powered window and porcelain cleaner (which is being loaded by Union-Chemie-Erzeugnisse, largest loader in Berlin). Several products of Sphrutechnik, Rheinfelden, Baden, are also included in the store's extensive aerosol line.

The store's show-window. Though featuring pressurized paints, the shop sells a wide range of other products.

The paint products of Aerosol Packing Co. have found considerable favor in Sweden. Because of that country's many rivers and lakes and a tremendous interest by the population in boats, marine paints are that company's specialty. Incidentally the same condition exists in Berlin, since it also has many rivers and lakes, and these paints are therefore the store's best selling line. They are all packaged in Crown 12-ounce "Spra-Trainers" and are fitted with Aerosol Research K-38 type valves. Because of Sweden's very low import duties on such materials, the aerosol packagers there seem to prefer U. S. components, although Continental suppliers with their quicker deliveries, are currently making some headway in the Swedish market.

At any rate, Mr. Woyda's aerosol store seems to be concentrating almost entirely on household and automotive-type products, and is leaving cosmetics and toilet goods to drug stores and perfume shops. He has undertaken an extensive newspaper advertising campaign and has hand bills distributed in various sections of the city. The public seems to be catching on to the aerosol idea and the store's business is growing.

Incidentally, Mr. Woyda probably warrants a story himself. He left Berlin in the 1930's for Bolivia and opened a retail store specializing in paints and household articles in La Paz. The business prospered, and he currently owns four such shops in La Paz, all of which stock some aerosol paints packaged in the U. S. Being a native Berliner and anxious to see his city again, he came back last year to pick up old threads and to start a new business. Remembering some of his experiences with push-button paints in Bolivia, he settled on aerosols as being a "natural" for a new type of shop—despite the fact that the Berlin buying public seemed to have little knowledge of the product or of how handy it has become.

Working through his advertising campaign, handbills, and his own selling abilities, he and his store seem well on their way toward selling at least a portion of the Berlin market on the aerosol idea.★

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Three Marketers Move

Chemical Specialties Co., Pro, Inc., and No. 49 Formulas, Inc. all affiliated companies of New York, have moved their operations to a new plant at 51-55 Nassau Ave., Brooklyn, N. Y. Phone number of the new location is EVergreen 8-6018. All three companies had been located at 50 East 11th Street, New York City.

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Crag Fly Repellent also extends and improves the effectiveness of residual toxicants. Like always dependable Pyrenone, Crag Fly Repellent is decidedly economical, too.

Today Fairfield Chemicals offers you Pyrenone plus Crag Fly Repellent in oil-base or emulsifiable concentrates. Or if you prefer to make your own combinations, you can also obtain Crag Fly Repellent from our regional offices.

A new Technical Data Sheet entitled "Pyrenone-Repellent Combinations" is immediately available. For your copy, including complete price information, contact your nearest Fairfield representative today. Branches in principal cities. In Canada: Natural Products Corporation, Montreal and Toronto.

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International Aerosol Laboratory Established in Switzerland

WHAT is believed to be the first internationally-constituted aerosol research and quality control laboratory is being established in Switzerland. Called Chemtech AG, it will operate as a subsidiary of Precision Valve International, Zurich, Switzerland, and will serve all of the foreign subsidiaries and licensees of the company, as well as their customers and prospective customers.

The new laboratory will be headed by Dr. Herbert Meurisch, who has spent the last five years developing aerosol and conventional cosmetics, pharmaceuticals, insecticides, and household products for C. H. Boehringer, Ingleheim, Germany. Dr. Meurisch last month concluded a visit to U. S. filling plants, valve and component manufacturers, and propellant plants, and was interviewed by *Aerosol Age* to find out exactly what functions his laboratory would perform.

According to Dr. Meurisch, the primary function will be to narrow the gap in technological knowledge between Europe and the U. S. in quality control systems, laboratory procedures, and pure research. "Because of export difficulties, price variations from country to country, and other related factors, it has been almost impossible to package one formulation with exactly the same materials with which it is packaged in another country. In some cases this has resulted in improperly working products, inconsistencies in valve performance, container corrosion, etc. One of the prime functions of Chemtech will be to overcome these inconsistencies through research and a standardization of quality control methods in all of Precision's subsidiaries and licensees, as well as by working directly with the customer's chemists and other technicians."

Dr. Meurisch pointed out that Chemtech will serve not only the Precision licensees in Europe (England, France, Germany, Italy) but also those in Australia, Japan, and South America. "These licensees already have good knowledge of quality control and advanced manufacturing techniques, but there remains a time gap and a need for standardization of basic procedures. It is anticipated that our laboratory will be able to correct this situation, and at the same time be able to increase quality all along the line.

"Another function will be the determination of exactly which valve would be best for a particular product. In the U. S. there are enough custom fillers so that the prospective aerosol marketer can simply bring his product to one and have it developed and then packaged. In Europe there aren't that many contract fillers, and the marketer is often left to his own resources to select container, valve, component, etc. Sometimes there is not sufficient confidence placed in the custom filler by the marketer. The latter situation has sometimes resulted in fantastic inconsistencies. For instance, one big firm had employed a custom filler successfully for some time. Suddenly a decision was made that the company should fill its own aerosols — before the firm's chemists actually were able to learn exactly *what* was in the aerosol can. Naturally enough, the company's own line soon had to close down.

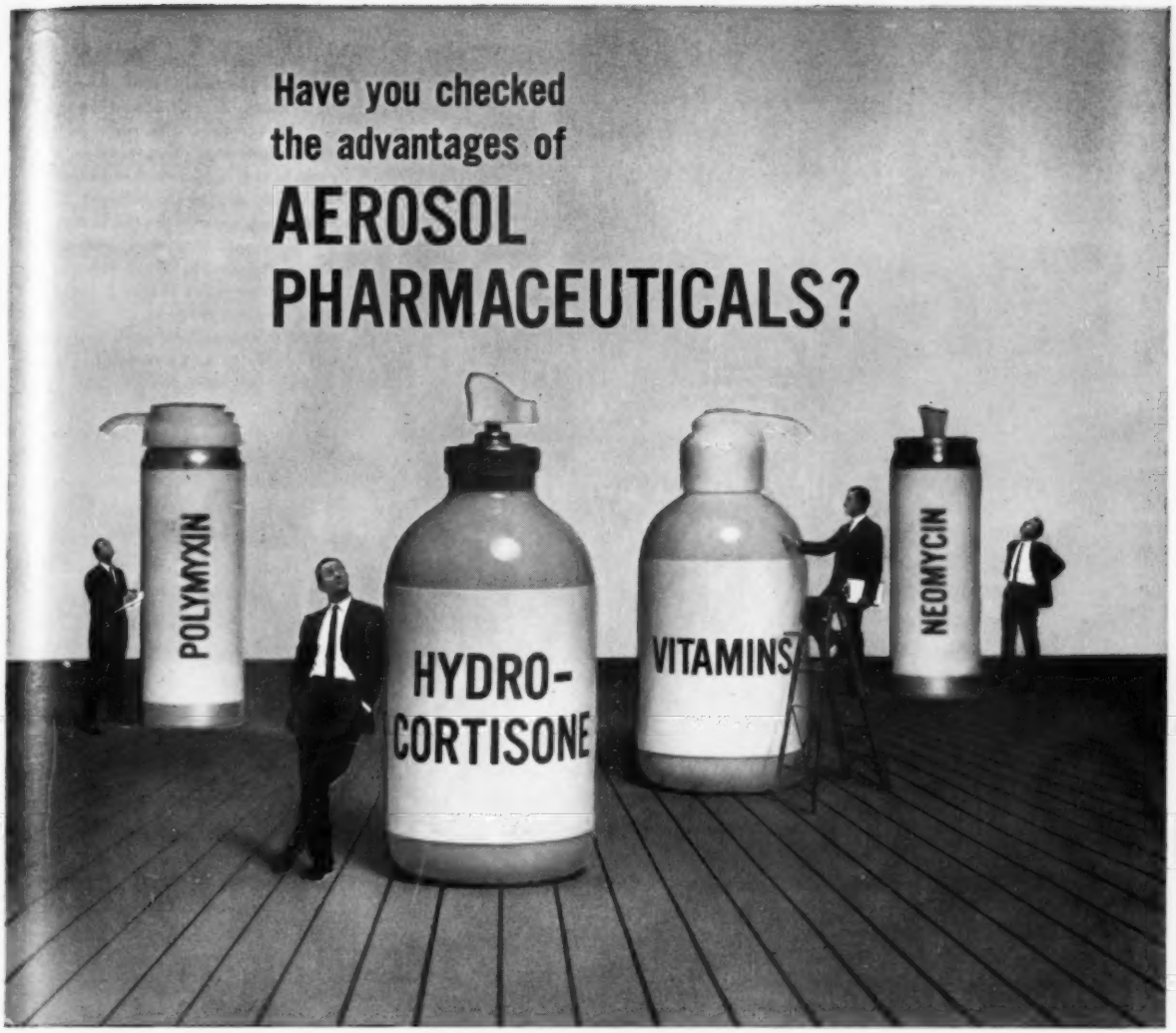
Dr. Meurisch (photographed during a recent meeting of the International Aerosol Association).

"It has been our experience that the widely varying material prices from one country to another make for added hardships to the filler. In many cases he is forced to fall back on price alone as the determinant in buying a component or raw material. True, the European Free Market, when it makes itself fully felt, will correct (or at least alleviate) this problem. But there remains a real need for a research laboratory to assist the packager in determining which of these components and raw materials will work together in his formulation."

According to Dr. Meurisch, a third important function of Chemtech will be to act as a central information center for U. S. and other foreign firms who want to establish a later distribution for their aerosol products in Europe or in America (for European countries). Chemtech will have resources to advise the prospective marketer on the propellant, valve, custom filler situation in whatever

(*Continued on Page* 64)

Have you checked the advantages of AEROSOL PHARMACEUTICALS?



● The unique advantages of pressure packaging lend themselves to a number of pharmaceutical products and applications. For some time now Pfizer has been working in close cooperation with the pressure packaging industry to develop formulations where these advantages will be most profitable for pharmaceutical manufacturers.

For example, the stability of liquid multivitamins is greatly extended by pressure packaging because the preparations are overlayed by an inert gas, such as nitrogen, for the life of the container. Also, they are protected from the deleterious effects of light.

Another inherent advantage of pressure packaging is the complete freedom from atmospheric contamination afforded the contents of the package. Topical preparations utilizing Pfizer Hydrocortisone and the antibiotics—neomycin and polymyxin—as well as multivitamin preparations are particularly enhanced by this feature.

The Pfizer non-toxic plasticizers—Citroflex® A-2 and A-4 have proven highly effective for polyvinyl compounds used in pressure packed hair sprays and spray bandages.

Because of the firm conviction that pressure packaging will play an important role in the pharmaceutical industry, Pfizer is continuing to direct considerable effort towards the development of antibiotic, steroid and vitamin aerosol formulations. For a report concerning the role pressure packaging is playing, and will play, in the pharmaceutical industry write to Pfizer requesting reprints of the article, "Pressure-Packed Pharmaceuticals."

Among the many other advantages of pressure packed pharmaceuticals are:

- Application is fast, convenient, uniform.
- A high concentration of a drug over a limited area may be obtained.
- Direct contact with the injured area is eliminated, often reducing pain.
- No waste through intermediate applicator.
- Dosage may be controlled accurately with metered valves.

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Pfizer

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AEROSOLS in review

In this column important aerosol subjects appearing in other periodicals (both domestic and foreign) will be reviewed and summarized. It is felt that this service will enable the reader to keep abreast of most of the significant contemporary articles on the industry even though they may appear in other periodicals. Since there is a chance that some pertinent articles may be overlooked, it will be helpful if readers will call our attention to any they judge important enough to review.—*The Editor.*

Food Magazine Reports on Aerosol Coffee

THE mechanics of filling "Tasti-Cup" liquid instant coffee, the first aerosol version of an instant coffee, are discussed in detail in the February issue of *Food Engineering*. The article declares that the manufacturing process is a continuous operation, in that the green coffee is purchased, blended, roasted, ground, extracted, packed and shipped, all in one day.

"The packaging process begins with the pumping of the freshly extracted liquid coffee from holding tanks to a Hope filler. Here the product is filled into cans that have been sterilized in a Wilmot autoclave and passed through an Island unscrambler.

"After being filled with eight ounces of product (the remaining four ounces in the 12-ounce can is headspace), the can is check-weighed. Next stop is a station where the valve is placed and crimped on an Aero-Matic unit. A Beach-Russ vacuumizer removes the air before the nitrogen is added. A leak-testing sink then checks all cans. The Calrod drying units then blow water from the cans before they reach the table where caps are applied. The cans move by stainless steel track conveyors.

". . . A supplementary shift at the company's Brooklyn plant will soon pack 'Maison Julien' chocolate syrup. The process remains the same for this contract packing, with the chocolate being pumped from holding tanks to the filler. Though the 'Maison Julien' product is packed in a 16-ounce can, the same line will be used."

•

AEROSOL package prices will probably rise during 1959, Thomas M. Glynn, plant manager of John H. Breck, Inc., reports in the February issue of *Modern Packaging*. "In general," he declares, "we look for prices to resume the climb which was stalled by the recent recession. No all-inclusive statement is possible on price expectations in 1959, as conditions vary by materials, but labor and freight will continue to exert pressure to raise prices.

"Glass-bottle prices have increased about 5% for each of the years 1957 and 1958. We are anticipating no increases for the first six months of 1959. Prices of aerosol cans, metal caps, and metal pails rose in 1958 and we anticipate another rise the second half of 1959."

•

"AEROSOLS are a permanent part of the fragrance business, not just a passing packaging fad." So declares Arthur Kreinik, of the Dana Perfume Corp., in an article entitled "Aerosols Boost Over-All Sales" in the January issue of *Drug & Cosmetic Industry*. "Far from being a gimmick," Mr. Kreinik continues, "aerosol packaging has a basic appeal and utility that assures aerosol colognes of a continuing share of the fragrance market. The proportion of aerosol sales to conventional package sales is now relatively stabilized, I believe, and we can expect aerosols to continue to grow as the entire industry progresses."

Mr. Kreinik describes in detail the thinking behind his company's entry into the aerosol field in 1953, after two years earlier having rejected the notion of packaging colognes in an aerosol can.

"We now package eight fragrances, having added Voodoo, Danita, and Lavender to our original aerosol line of Tabu, 20 Carats, Ambush, Emir, and Platine. Our success in promoting aerosol colognes can be attributed to a variety of factors. First of all, Dana was one of the first major companies in the aerosol field. Secondly, from the start, we packaged our fragrances in attractive and unusual bottles that were clearly identified not only with Dana but also with a specific fragrance. And finally, in an unusual demonstration of faith in aerosols, we 'went for broke' putting out five of our six fragrances then on the market in aerosol dispensers.

"Curiously enough, teaching retail sales people how to use and sell aerosol colognes was the most difficult part of the introductory period. Since fragrances ultimately must be sold directly to the consumer, much of our success depended on the desire and ability of individual sales people to 'sell' one product as against another. Therefore, an informative newsletter was sent to demonstrators, who also received packages of promotional and other sales aids.

"The reception of the aerosol is even more impressive when one

NOW! AEROSOLS SPRAY PAIN AWAY

Pharmaceutical aerosols may see next big market break-through!

Right now, pharmaceuticals are the fastest growing of all aerosol product groups. Pressure-packed drugs showed a sales increase of 155% in 1957 over 1956—compared to a 22% increase for all aerosols. A major market break-through seems imminent—for products such as spray-on burn remedies which are now being marketed, and for a host of other pharmaceutical products which have yet to be put up in aerosol form.

Right now's the time to plan on capturing *your* share of this market. And while you're considering aerosol packaging for your medicinal product—*or any other product* that can be sprayed, poured, brushed, dusted or daubed—General Chemical can be of real help to you in many different ways.

Help in making and marketing

As a leading producer of aerosol propellants, General Chemical offers many helpful services to present and prospective aerosol marketers.

Advanced research in our aerosol laboratories has led to the development of typical formulations for a number of new aerosol product ideas. For example, *Product Information Bulletins* are available now on such new aerosol pharmaceuticals as Athlete's Foot Medication, Burn Remedy, External Analgesic, Nasal Relief Spray, Neomycin Spray and Foam, Poison Ivy, Oak and Sumac Remedy, and Medicated Hand Lotion. Write for free copies of any or all, and ask to be put on our mailing list for new *Bulletins* as they are developed.

We will also be glad to put you in touch with highly capable contract fillers, who can put up small runs for you or handle full-scale commercial production. They will work with you from planning and testing through to volume filling. You don't have to invest a cent in equipment or production personnel when you work with these contract fillers!

General Chemical services include:

New Product Ideas

Technical Literature and Market Data

Technical Assistance with Product Development and Formulation

For further information—or if you would like to arrange for a special presentation—write today to "Genetron" Dept., General Chemical Division, Allied Chemical Corporation.

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Allied Chemical

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Pressurize Your Sales...

with MM&R Fragrances

Let MM&R put a powerful urge to buy in your aerosols. MM&R perfume oils overcome even the heaviest odors of basic chemicals and impart a refreshing, sales-stimulating fragrance to your products, at low cost.

New MM&R perfume oils are being created constantly to keep abreast with rapid advancements in the aerosol field and to meet the special requirements of our customers.

MM&R's cumulative knowledge and experience, gained during more than sixty-three years in the development of perfume oils — over fifteen in connection with aerosols — are at your service in increasing the salability of your products.

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realizes that this packaging method has caught on *despite* the fact that point-of-sale promotion has never been loaded in its favor. We don't use aerosols as counter-testers, it's just too wasteful — every passerby feels compelled to press the actuator, whether or not she's interested in the product. Even so, women still ask for and buy aerosols."

•

IDENTICAL package appearance of aerosol containers could become a serious consumer problem, claims the Nov. 28 edition of *Newspaper News*, Australian advertising trade periodical. "Manufacturers in the United States," the newspaper reports, "are seeking ways of ensuring identity of contents by customers. Women's magazines are calling attention to the hazard of mistaking an aerosol can of insecticide or aluminum paint for aerosol hair spray.

"Users of other types of containers who suffer from the same confusion of identity are expected to adopt the aerosol solution when it is found."

•

THE same issue of *Newspaper News* contains an account of an interview with L. W. Meuller, managing director of Parco Chemicals Pty. Ltd., Australia's largest custom filler. Some of the highlights of Mr. Meuller's comments were as follows:

"While estimates indicate that insecticides and hair sprays are top sellers among aerosols in Australia, the probability is that hair sprays are slightly ahead in sales. The fact is that three years ago there were only two hair spray aerosols on the market and that there are now about 15 indicates the popularity of this particular product and the sales growth of aerosols generally.

"... There is a downward tendency in costs with the increase in sales and in a couple of years there should be a reduction in the price of aerosol packages.

"... Commenting on labels, Mr. Mueller said that initially manufacturers had used printed labels but later many had gone over to lithographing the label directly on to the can. However, there is a swing back to printed labels for products demanding especially colorful and attractive presentations, such as hair lotions and perfumes."

C. R. M. Graham, managing director of Samuel Taylor, a leading marketer, comments in the same article: "Various components for aerosol packages in Australia cost so much that the cans cost twice as much to produce here as they do in the U. S. Despite this, they sell to the public at the same price or lower than in America."

•

THE now "old-hat" controversy of custom vs. do-your-own aerosol filling is discussed from the European standpoint in the January issue of *Parfumerie und Kosmetik*, leading German-language trade publication for the aerosol and allied fields. From the standpoint of completeness, the article is a good one—mainly because it brings up-to-date much data on filling speeds, custom filling costs, etc., as they relate to European conditions. However, the fact that it is in German will limit its impact as far as the U. S. reader is concerned.

•

COMMENTARY on the paper by Drs. Calandra and Kay on the "Effects of Chronic Inhalation of Hair Sprays in Experimental Animals" is made by Maison G. deNavarre, in his monthly column in the January issue of *American Perfumer & Aromatics*. "Although the paper seemed to drag unnecessarily," Mr. deNavarre comments, it was a joy to hear. The work seemed thorough, though one control, the completely untreated group, didn't seem to be sufficiently stressed.

"The experiments were rigid and drastic. The results could not in any way point to the two different hair sprays, a PVP/VA and a shellac type, as causing any changes in the major organs of the animals tested that did not appear in control groups.

". . . The subjects reported by Bergman seemingly did not use the hair spray as it was intended to have been used. No matter what animal tests show, they still prove only that the results are valid for the conditions of test and on the test animal. As do so many in the medical literature, Bergman's report points up the fact that consumers do not pay enough attention to labeling. . ."

•

SOME background on the early development of the aerosol package by Goodhue and Sullivan is given in the February issue of *Modern Packaging*. The trade magazine devotes the February "Great Packaging Discoveries" to the aerosol, and, in the following paragraphs, relates the story:

"As now recalled by Dr. Goodhue, it was April 12, 1941, the day before Easter Sunday, when he was inspired to invest in a five-pound cylinder of Freon 12. Next morning he was at work in the Beltsville lab. He put some pyrethrum, sesame oil, and 'Freon 12' into a metal cylinder fitted with a standard-type oil-burner nozzle. With Sullivan and associate researcher John H. Fales, a sampling of cockroaches was placed in a test cage. A fog from the new aerosol was introduced. The roaches rolled over on their backs. The researchers knew the problem was solved. Dr. Goodhue's shout echoed through the lab. Not only were test insects killed, but so were half of the valuable cultures on adjoining floors. This was not fully appreciated for nearly two weeks, but it indicated the tremendous potency of the discovery.

". . . Sullivan first took the aerosol to the mushroom grower. Then his friends at Walter Reed Hospital used it to protect valuable laboratory rabbits. Sponsors soon had him commissioned a lieutenant and transferred to Wright-Patterson Field in Dayton, Ohio. Col. (now Maj. Gen.) Otis O. Benson, an expert on putting commercial firms to work in the war effort, called in representatives from Westinghouse and Schrader Valve. Westinghouse had in stock thousands of one-pound 'Freon' containers for refrigerator service. In just two weeks 155,000 aerosols were on order. And Sullivan was on his way

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Now you can reclaim the product and the container in an efficient and economical manner. Robins' DE-crimper becomes a part of your existing line — rejects are turned into usable, profitable merchandise.
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COMPLETE ROTARY AEROSOL LINE
requires only 4' x 4' floor space
Includes: Filler, Crimper, Gasser, Tester
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to theatres of war—a one-man advance party in a far-flung effort that saved untold lives, dollars, and man-hours."

•

A DISCUSSION of formulation problems with aerosol and non-aerosol paint removers is the feature article in the Jan. 8 issue of *Paint, Oil & Chemical Review*. Written by P. H. McLaughlin, sales development manager of Stauffer Chemical Co., New York, the article suggests the following as a practical aerosol paint remover formulation:

Aerosol Type	*Percent*
Methylene chloride	39.0
Crude scale wax	2.0
Ethyl cellulose	2.0
Methanol	9.1
Cellosolve acetate	9.6
Trichloroethylene	13.3
Propellant	25.0

Flammability rating: combustible
Flame propagation: 12 inches
Drum test: negative
Flash point: 106 F.

A modern product, Mr. McLaughlin writes, will have at least five principal ingredients. "There will be one or more volatile solvents — the major active ingredient — which will dissolve the coating to be attacked. A chlorinated solvent may be used as the major active ingredient or as a co-solvent to reduce the flammability. A wax is also included to reduce volatility, a dispersing agent to blend in the wax, and surface active agents to promote penetration and make the product rinsible.

"... As is always true in formulating chemical specialties, all the desirable features can't be perfectly realized in any one product. But the goals to aim for are rapidity of action, low volatility, the right viscosity, non-toxicity, non-flammability, clean rinsibility, non-corrosiveness, and stability in storage.

"Since it is the active ingredient, of course most attention is paid to the solvent. By far the most popular paint remover solvent is methylene chloride. It is safer and more pleasant to use than many of the others. A colorless liquid with a mild odor, methylene chloride is practically non-flammable, thus minimizing fire hazard — one of the greatest dangers in paint removal work. It is also one of the least toxic of the chlorinated hydrocarbons. Methylene chloride is also the most efficient paint removing solvent. It is rated 100 by remover makers (in standard tests it takes 45 seconds to wrinkle a coat of paint). Next best is chloroform (rated 99) followed by ethylene dichloride (rated 45). Generally speaking, the efficiency of a solvent decreases as the chlorination of the organic radical increases, and as the radical's carbon chain lengthens.

"When combined with methylene chloride, methanol is one of the less expensive and most frequently used co-solvents. The general principle to follow in adding co-solvents to methylene chloride is that polar solvents improve stripping time, non-polars do not. Small concentrations of polar solvents are more effective than large concentrations, except with air-dried phenolic resin paints and shellac."

•

AN excellent article on "Perfumes for Aerosols," written by Joseph H. Fein of Florasynth Laboratories, Inc., appears in the February issue of *Drug and Cosmetic Industry*. Mr. Fein's general remarks should prove valuable in educating the perfumer to better understand aerosol products:

"Resins of all types must be used with great care, to avoid difficulty with respect to solubility in the propellant. However, it is not true that they must necessarily be completely avoided. So, too, the use of musks, both natural and synthetic, as well as such crystalline substances as heliotropin, vanillin, coumarin, and many others, must be considered with caution. Balsams, civet, castoreum and a number of other valuable fixatives must be held suspect for the purpose of aerosol perfumes and toilet waters, unless the final product has been shelf-tested for long periods of time in the container to be adopted and under the identical condition of packaging.

"All of the above components can and sometimes do precipitate out of solution in the presence of liquid pro-

(*Continued on Page* 60)

FDA's Position on Drugs in Cosmetics Defined by Dr. Lehman to N. Y. SCC

PATENT drugs have no place in cosmetics, Dr. Arnold J. Lehman, director of the Division of Pharmacology of the Food and Drug Administration, told a meeting of the New York Chapter of the Society of Cosmetic Chemists at the Hotel New Yorker on Feb. 4. Dr. Lehman's important address drew upwards of 181 people, making it one of the best attended meetings of the New York SCC this year.

Cosmetics are so habitually used these days, he continued, that they can probably no longer be considered luxuries. Label and advertising claims, he cautioned, are sometimes stated in such a way as to push these cosmetics into the pharmaceutical category (with all the labeling, testing and other additional marketing responsibilities that accompany such a designation). As examples of typical phraseology that the FDA considers "objectionable" for cosmetics, he cited:

restore hair color
nourishing cream
skin tonic
rejuvenates the skin
grows or restores hair
eradicates wrinkles.

Any of these (and others of similar intent), he explained, implies a possible pharmaceutical benefit from an ordinary cosmetic formulation. Turning to specific materials to which the FDA objects to being formulated into cosmetic preparations, Dr. Lehman mentioned hormones, antibiotics, mercury, and antiseptics. Antibiotics, he declared, are potentially dangerous because repeated application, in cosmetic formulation, may produce serious sensitization in the user. It also promotes development of resistant strains, and could be highly dangerous if an immunity is built up to an antibiotic that may be given to save a life.

Dr. Lehman cited similar objections to certain antiseptics, pointing out that "skin fatigue" is not unusual for some. "The chlorinated phenols," he explained, "are widely accepted as being a prime cause of skin irritation. However, we have no objection to certain of the surfactants providing tolerance limits have been definitely established prior to use."

To further explain the FDA's philosophy on the addition of drugs to cosmetics, Dr. Lehman pointed out that since cosmetics are not normally regarded as innocuous, there is little inherent fear of overdose by the user. Also, certain cosmetics tend to be used daily for long periods of time, some for nearly the lifetime of the user. Thus it is to protect the user against improper introduction of potentially dangerous materials that the FDA's policy has been so firmly established.

In conclusion Dr. Lehman declared: "As long as you make a claim for pharmaceutical results, you must substantiate it and enter a new drug application with the FDA."

In a question-and-answer period after his formal talk, Dr. Lehman parried a question by Dr. Joseph Kalish, technical editor of *Drug & Cosmetic Industry* about whether the skin of a rabbit can still be considered a valid measurement for effects of cosmetics and pharmaceuticals on human skin. Dr. Lehman acknowledged that in certain areas, the skin of a rabbit might be somewhat more sensitive than that of a human, but declared that it "faithfully reflects what we would expect to find in human skin."

National Packaging Show Expected to Be Largest Yet

THE rapid growth of the packaging industry and the increasing attention being given to this activity by the top managements of package-using companies will be reflected at the American Management Association's 28th National Packaging Exposition and Conference in Chicago next month.

The exposition, annual market place of the multi-billion-dollar-a-year industry, is expected to be the largest packaging show in history. Nearly 140,000 square feet of space is being laid out for it at the International Amphitheatre. The show, scheduled for April 13-17, will be accompanied by the association's National Packaging Conference at the Palmer House, April 13-15.

This year's National Packaging Exposition is the first five-day packaging show to be held in Chicago. The 1958 show, the first five-day one in the history of the event and the first to be held in New York in fourteen years, drew 35,400 visitors.

Among the aerosol exhibitors will be:

Aluminum Co. of America
American Can Co.
Arenco Machine Co.
Continental Can Co.
Crown Cork & Seal Co.
E. I. du Pont de Nemours & Co., Inc. Polychemicals Dept.
Emhart Manufacturing Co. Standard Knapp Division
The Walter Frank Organization
General Chemical Division Allied Chemical Corp.
Adolph Gottscho, Inc.
Kaiser Aluminum & Chemical Inc.
The Karl Kiefer Machine Co.
MRM Co., Inc.
Mojonnier Associates Division Kartridg-Pak Machine Co.
Monroe-Danford and Co.
Ohio Chemical & Surgical Equipment Co. Division of Air Reduction Co.
Owens-Illinois
Reynolds Metals Co.
U. S. Bottlers Machinery Co.
U. S. Industrial Chemicals Co.

Altogether, close to 400 suppliers of packaging materials, equipment, and services will display the newest in machinery, containers, designs, and other items used in the packaging, packing, and shipping of consumer and industrial goods. An additional section of the International

(*Continued on Page* 64)

Two new Italian products are **Aer-Sana,** a room deodorant, and **Vitro,** a window cleaner, both of which use valves made by Solfrene, Italian licensee of Risdon. The first of these is made by L. Manetti-H. Roberts & Co., Florence, and the other by Deisa of Bologna. Solfrene also does the filling.

American Cyanamid Co., New York, has introduced an aerosol spray, containing "Aureomycin" chlortetracycline, which is said to be the first broad spectrum antibiotic in aerosol form for use on farm animals. It can also be used on dogs and cats.

Marcel Rochas has introduced two colognes in aerosol form. **Femme** a feminine cologne, and **Moustache,** a masculine fragrance, are packaged in Wheaton glass bottles with Risdon Micro-Mist valves. Four-ounce size will retail at $6, seven-ounce at $9.

NEW PRODUCTS AND PACKAGES

Bowl Cleaner, reportedly the first such product of its kind, has been developed by National Spray Can Filling Corp. of Brooklyn, N. Y. The 14-ounce container will retail at 98 cents in grocery stores and supermarkets.

Photo: Courtesy MILKMAID CURL GLAMOUR HAIR SPRAY

ETHYLAN®... the most effective liquid lanolin additive for hair sprays provides

SIX FUNCTIONAL ADVANTAGES

1. Increases plasticity – reduces hygroscopicity of PVP films – reduces their sensitivity to weather conditions – eliminates flaking during dry weather and stickness in wet weather.
2. Forms stable solutions with PVP/alcohol concentrates.
3. Compatible with all aerosol propellents.
4. Can be incorporated at room temperature by simple mixing.
5. Prevents valve clogging due to crystallization and sedimentation of suspended solid ingredients.
6. Imparts sheen.

For details see our Product Bulletin 53

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POISON IVY ITCH loses its fire fast in the soothing spray from a handy Crown Spra-Tainer—first and most popular aerosol package. And fast is the word for the way sales go up when products of all kinds are pressure packaged with the help of Crown, pioneer in the field. Crown is the only source of both seamless and fabricated Spra-Tainers . . . offers you five different sizes . . . has unparalleled experience in aerosol packaging. Let Crown serve you.

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CROWN

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NEWS of Pressure Packaging

Elmi Joins Associated Brands

Associated Brands, Inc., Brooklyn, N. Y. custom filler, has announced the appointment of Steele Elmi to its quality control and research laboratory. Mr. Elmi had formerly held a similar post with B. T. Babbitt, Inc., and prior to that was technical director of cosmetics and household specialties for Powr-Pak, Inc.

Mr. Elmi is credited with development of PVP/VA copolymers for use with hair sprays and protective films. He also did extensive developmental work with the technical service department of the General Chemical Division of Allied Chemical Corp. With that company he was one of a group of technicians who conducted an aerosol education program among packagers throughout the country. In the past, he has also lectured on aerosols at St. John's University, his alma mater.

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FDA Clears Hair Sprays

The Food and Drug Administration last month cleared most common aerosol hair spray ingredients of being dangerous to the user through normal use. The results of tests which were conducted in the FDA laboratories, were released in a letter to the CSMA, which was itself abstracted in a CSMA bulletin issued on February 9. The results of the tests had been hinted at by FDA Commissioner George P. Larrick in an address at the CSMA Convention in New York last December.

Excerpts from the FDA letter are:

"Aerosols tested contained as the resin base or other 'active' ingredient (1) PVP, (2) PVP-PVA, (3) DMMF (dimethyl-hydantoin formaldehyde), (4) shellac, (5) methacrylate resin, and (6) lanolin.

"From the results of our tests, we concluded that normal use of hair spray preparations of the composition and physical characteristics of those studied in our laboratories presents no problem of safety for use."

The CSMA bulletin points out that a formal paper is being prepared by the FDA for future publication.

•

General Names Swaine

The Allied Chemical Corp., New York, has announced the appointment of James W. Swaine as vice-president of the General Chemical Division, a major producer of aerosol propellants. He succeeds James G. Fox, Jr., who was named executive vice-president of the National Aniline Division.

Mr. Swaine, formerly technical director of the General Chemical Division, will be in charge of research, engineering, and construction.

•

Boyle-Midway Names Wheeler

Robert S. Wheeler has been elected vice-president of the Boyle-Midway Division, American Home Products Corp., it is announced from company headquarters in New York.

Mr. Wheeler is director of advertising for the company, which is the household products subsidiary of American Home Products Corp. He joined Boyle-Midway in 1950 as national sales promotion manager and a year later was advanced to his present post.

The Boyle-Midway Division manufactures and distributes more than 125 household, personal and gardening products, with factories in Brooklyn, N. Y.; Canton, Ohio; Chamblee, Georgia; Chicago; Cranford, N. J.; and Los Angeles. Among its well-known national brands are "Aerowax," "Griffin" Shoe Polishes, "Aero Shave", "Black Flag" insecticides, "Wizard" home deodorizers, "Easy-Off" cleaning aids, "Antrol" lines of gardening products, and "3-in-ONE Oil."

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Amchem Appoints Torchiana

Amchem Products, Inc., Ambler, Pa. (formerly the American Chemical Paint Co.), has announced the appointment of Joseph Torchiana as sales manager for lawn and garden products for the Agricultural Chemicals Division. He will continue as advertising manager of the division.

R. C. Rumple Joins VCA

Appointment of Richard C. Rumple as VCA sales representative was announced recently by Valve Corp. of America, Bridgeport, Conn., manufacturer of aerosol valves and fitments. He will cover the Eastern states, with sales headquarters at 10 East 49th St., New York, N. Y. He will work in conjunction with VCA's technical sales service, assisting in the development of components for new aerosol products and developing new aerosol lines.

Formerly metropolitan New York area representative for John C. Stalfort & Sons, Inc., custom packaging firm, Mr. Rumple is a member of the Chemical Specialties Manufacturers Association and the Parenteral Drug Association. He was also northeastern area representative for the Plasticoid Co. of Maryland. A resident of Plainfield, N. J., he attended Florida Southern College, majoring in business administration.

•

Redram Begins Operations

A new aerosol filling plant made its debut last month when Redram Chemical Co. began operations at its 755 Utica Avenue, Brooklyn, N. Y. location. This is reported to be one of the most modern up-to-date installations in the New York area.

Mojonnier Associates Division, Kartridge-Pak Machine Co. of Franklin Park, Ill., is supplying what is reported to be one of the most complete lines ever furnished to a single packager. The keynote of the Redram installation is the versatility of the equipment being installed, since pressure filling, cold filling, or nitrogen gassing all can be done on the single filling line. The addition of nitrogen gassing and pressure testing equipment to the Redram line will allow packaging and development of many new nitrosol products which it is not practical to package on existing aerosol equipment. Both Jerry Marder, president, and Sam Alessi, secretary, of the new concern, expressed a belief that the introduction of compressed gas propellants will be re-

sponsible for a marked expansion in the number and type of pressurized products that will appear in the future.

•

American Can Elects May

The election of William F. May as a vice-president in the executive department was announced last month by American Can.

Formerly assistant to the vice-president in charge of the firm's Canco Division sales, he joined the can company in 1938. He has held a number of important positions in research, manufacturing, industrial relations and sales.

In 1946 he was appointed supervisor of the container research department and subsequently became supervisor of the enamaling and decorating division in New York. Later he was a technical assistant in the general manufacturing department, a special assistant in the industrial relations department and general manager of Canco's paper milk container department.

Mr. May was named manager of manufacturing in Canco's Central Division in 1957 and about a year later transferred to New York as manager of food can sales in the general sales department. He was named assistant to the vice president in charge of sales for the Canco Division in 1958.

•

Tilling Forms New Aerosol Co.

Thomas Tilling, British holding company which is one of the principal owners of Safca Aerosol Manufacturing Ltd., a leading English custom filler, recently added to its holdings with the acquisition of a majority interest in a new company called Mondart. Mondart will introduce a new line of aerosol products some time this year.

R. T. Copp, sales director for Fablon, a subsidiary of Commercial Plastics (which has joined Tilling in the Mondart venture) will be managing director of the new marketing company. According to the Tilling announcement, marketing plans for Mondart are already well advanced.

•

Colgate Names Arrington

Kenneth B. Arrington, former product manager for "Colgate" dental cream, has been appointed general product manager of the toilet articles division of Colgate-Palmolive Co.

Continental Names Fornero

George M. Fornero has been named Midwest regional sales representative

George N. Fornero

for Continental Filling Corp., Danville, Ill., a leading aerosol custom filler. He will serve the states of Illinois, Indiana, Wisconsin, Iowa, Nebraska, Minnesota, Ohio, Pennsylvania, Tennessee, Missouri and Kentucky.

He was formerly sales service manager for the Betz Division of Bohn Aluminum & Brass Corp., manufacturers of coils for air conditioning and refrigeration.

•

CSMA Governors to Meet

The board of governors and various administrative committees of the Chemical Specialties Mfrs. Association will convene at the Belle-View Biltmore Hotel, Belle Aire, Florida this month for their annual pre-convention meeting. The meeting is scheduled for March 22-25.

•

Crown Can Names Schneible

Seth R. Schneible, has been appointed manager of aerosol product sales of the Can Division of Crown Cork & Seal Co., Inc.

Working out of Crown's home office, 9300 Ashton Road, Philadelphia, he will be responsible for the development and promotion of all aerosol containers and related fitments.

A graduate of the U.S. Merchant Marine Academy, he was a sales representative for the Reynolds Metals Co., and Penland Paper Converting Corp. before joining Crown in January, 1958. Previously, he served two years as 3rd Mate with the U. S. Lines on cruises to the Far East and Europe. From 1950 to 1952 he served as a Lieutenant j.g. with the U. S. Navy's Amphibious Force at Little Creek, Va.

A native of Saratoga, N. Y., Mr. Schneible makes his home at 253 Larkspur Lane, King of Prussia, Pa. He is married and is the father of a son, and a daughter.

Need Seen for Consumer Education in Australia

UNLESS the consumer in Australia is better educated, the spectacular sales successes enjoyed by the U. S. aerosol industry won't be repeated there. This was the gist of a statement issued last month by F. J. Hannan, Melbourne representative of Pegasus International Corp., New York international aerosol representatives.

The major factors working against good repeat sales, Mr. Hannan declared, are:

"1. Too often the cost of the vehicle (can, cap, actuator, etc.) are out of proportion to the value of the contents.

"2. Television advertising and store demonstrations show quite prolonged spraying of the particular product, just as though it were as necessary to dispense an aerosol in the same manner as it would be an ordinary conventional hand sprayer. This misleads the consumer into over-use of the aerosol, and later he is dissatisfied when it is used up too soon.

"3. Advertising and demonstrations do not stress the importance of shaking the can so as not to prematurely expell pure propellant. Although such warnings are printed on the container labels, they are not sufficiently stressed during the general education of the consumer. Mr. Hannan credits this shortcoming to the relatively low sales figures for shaving creams in Australia."

"The overall outcome of these three factors is widespread disappointment (by the consumer) at the relatively short effective life of the aerosol can, coupled with a realization of the relative high cost of this type of product in comparison with the conventional type.

"Lack of spontaneous repeat orders also may be blamed on the retail stores, who do not actively 'push' aerosols. Proof of this is the fact that in the majority of self-service stores, aerosols are relegated to obscure shelf positions."

ARE *YOU* INTERESTED IN

aerosol filling?

MORE and more liquid, powder, and lather products from pharmaceutical, cosmetic, and chemical laboratories are being packaged in aerosol containers. Some typical examples, taken at random from a large selection of products currently being marketed, include:

Anti-rust fluids
Automobile and furniture polishes
Fire extinguishers
Artist's fixatives
Insecticides
Cosmetic products of all types
Perfumes and colognes
Defrosting products
Artificial snow
Varnish and paints
Air purifiers
Stove polish
Ski polish
Shoe polishes and creams

As may be seen from the above list, there are unlimited possibilities for future developments. The choice of whether to place confidence in older packaging methods or to jump at the opportunity of marketing products in packaging of quality and decisive effectiveness lies with the marketer alone.

Keep Pace with Aerosol Development!

Aerosol Fylling A/S has Northern Europe's most modern aerosol packaging machinery. Our laboratories have experience with a wide variety of different products and are at your service to increase your sales. When we cannot give the required assistance our subsidiary companies and agents throughout the world are at your disposal. Aerosol Fylling packages no products of its own but works on an international basis to create higher standards of packaging for all who wish to be in the forefront of competition.

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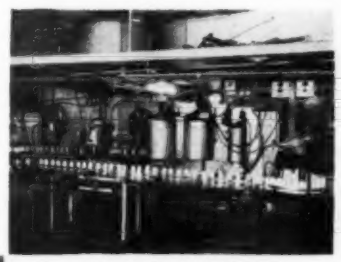

FROM OUR LABORATORY

AEROSOL FILLING DEPARTMENT

Aerosol Paints Seen Reaching 60 Million in '59

A 20% increase in production and sales of pushbutton paints in 1959 was predicted by American Can Co. last month. Robert Hollister, of Canco's Product Marketing Division, said 60 million cans of spray paints will be sold in 1959, an increase of 10 million over the 1958 figure. Emphasizing the steady growth of these products, Mr. Hollister pointed out that sales in 1957 amounted to 35 million units.

Pointing out that the 20% increase represents a "conservative estimate," he noted that aerosol paint sales in 1958 amounted to about $50 million, compared with the total sales value of trade paints of $900 million.

Paint industry leaders generally agree with Mr. Hollister's prediction.

James Bampton, president of Krylon, Inc., and the largest packer of aerosol paints, agreed with the 60-million-unit forecast, but stressed that the figure may well be exceeded. His company is introducing a new product—reflective colors—that Mr. Bampton thinks may account by itself for the sale of 10-million additional units in 1959.

Mr. Bampton foresees for the line "a tremendous future with use for military purposes, as a poster display aid, for precautionary painting, or any area that might require a reflective substance for safety purposes."

Optimism also prevailed at Benjamin Moore & Co. and at Red Devil Chemicals, Inc.

Horace F. Penney, vice president of Benjamin Moore, whose aerosol products are contract-packed by a Midwest loader, said, "We are introducing 'Retardo' rust inhibitor paint in aerosols in 1959, are expanding our standard line of 'Utilac' enamels about 50%, are thinking of introducing marine finishes and are researching a new type of paint never before pressure-packed."

Connor F. Ryan, sales manager for Red Devil Chemicals, reported that "Our volume is going up so fast we won't have the chance to add any new products. For the present we'll be happy just keeping up with the demand." Red Devil packs its own aerosols and also devotes about 25% of its capacity to contract loading.

Mr. Ryan had a most optimistic outlook for 1959, estimating that "Our company should do two and a half times the business we did in 1958. Last year, after successfully formulating an aerosol paint, we increased our aerosol business ten fold."

All of the officials questioned predicted steady growth in the demand for aerosol paints for years to come. One possible change was seen in container size. Mr. Hollister said his company is working on a container bigger than 16 ounces to provide the consumer with a large and more economical amount of paint. More than half the aerosol paints marketed now are packed in 16-ounce cans, while the rest come in 12-and six-ounce sizes.

"Basic convenience, increased quality of the package, better formulations of coatings and the elimination of the once bothersome problem of clogged valves have combined to give the consumer a safe, dependable product," Mr. Hollister said.

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Hemmingstad to West Penn

Roy Hemmingstad has joined the West Penn Manufacturing & Supply Corp., Brackenridge, Pa., as eastern sales representative for the company's complete line of aerosol cover caps and "Secure-Seal" metal screw caps for glass and metal containers. His office will be located at 120 Liberty St., New York 6, N. Y., with BArclay 7-3374 as the phone number.

•

Acrolite Adds to Staff

Acrolite Products, Inc., West Orange, N. J., last month announced two additions to its staff. Miss Flomena Niesen, former assistant to the president of the Vitamin Corp. of America and the Pink Ice Co., has been named to the Acrolite staff to handle promotion for the company's line of cosmetics and other home products.

At the same time the company announced that Irving Gottheimer, former president of Robert and Thymer, merchandising consultants, has joined the company's marketing and products management department.

•

G. J. Baker Joins MGK

Griffin J. Baker has joined the research and development department of McLaughlin Gormley King Co., Minneapolis, manufacturers of insecticides, where his duties will be the development and promotion of new products.

Mr. Baker received his B.Sc in Entomology from the University of Illinois in 1940,—following which he was for two years in Honduras with United Fruit Co. as research asistant.

After two years service with the Army Medical Department and a like period as research assistant at University of Illinois he joined Standard Oil Co. (Indiana) in 1946 as entomologist. At Standard Oil he was engaged in developing formulations of wood killers, insecticide sprays and aerosols. He remained with Standard Oil Co. until the small package division was discontinued in late 1957. During 1958 he was employed by Niagara Chemical Division, Food Machinery and Chemical Corp.

•

TGA Elects Williams

D. H. Williams, assistant to the president, Sterling Drug, Inc., New York, has been elected a vice-president of the Toilet Goods Association to succeed Robert E. Schwartz of Wildroot Co., resigned. Mr. Williams has been a director of TGA. Charles F. Junod, vice-president and advertising manager of Pacquin, Inc., New York, was elected a director to fill Mr. Williams' spot and Paul Bremer, general manager of Christian Dior Perfumes Corp., New York, was elected a director to replace Owen Stoner, former president of Prince Matchabelli, Inc., who is rejoining Vick Chemical Co.

•

Prussin to Speak in Canada

Samuel B. Prussin, director of new products and sales research of Aerosol Techniques, Inc., Bridgeport, Conn., will speak on "Aerosol Pharmaceuticals" at the Canadian Pharmaceutical Association session Friday, April 10, in Windsor, Ont.

Mr. Prussin has directed much of his company's activity in the pressurized pharmaceutical field.

Tull to New Crown Post

Harvey C. Tull has been named regional sales manager of the newly-created Central Region of Crown Cork & Seal Co., Philadelphia. The new region was established to provide the customer service necessary for the increased demand for Crown products and equipment in the area. S. V. Tuttas, vice-president-sales, in making the announcement, explained that the region will consist of the state of Michigan, all but the greater Chicago area of Indiana, Central and western Ohio, and all of Kentucky except the Paducah trading area.

Associated with Crown for 23 years, Mr. Tull has served in accounting, development research, sales promotion, and various sales supervisory positions. In recent years he was Philadelphia district sales manager, manager of the Spra-Tainer and Beer Can Sales Division, and manager of aerosol products.

Mark T. Concannon, former manager of closure sales for the Middle Atlantic Region, becomes consolidated district sales manager in Philadelphia, filling the position vacated by Mr. Tull. A graduate of St. Bonaventure University and holder of a Master of Science degree, he joined Crown in 1958 to work on special assignments in the brewing and bottling industries. He was named Middle Atlantic Region closure sales manager in October, 1958.

George P. O'Brien, manager of can sales for the Middle Atlantic Region, adds to his duties closure sales in the same region. A graduate of the University of Pennsylvania, he has been engaged in sales for Crown for 12 years, starting as a sales representative and later as assistant district sales manager, district sales manager, and consolidated district sales manager for the Philadelphia area.

•

Shield Has New Management

The Shield Chemical Co., Boston custom filler, last month announced that the company is under new management. George Bates is president, treasurer, and production manager and Geoffrey Neville is vice-president in charge of sales and technical director. Both men bring technical as well as management training into the growing young company.

•

Hitchcock Joins Shulton

Frederick C. Hitchcock, former director of new products for Warner-Lambert Pharmaceutical Co., has been named assistant to the president of Shulton, Inc., New York aerosol marketer. He will assist George L. Schultz and the company's division managers in evaluating present and developing new marketing methods. Prior to his association with Warner-Lambert, he was sales vice-president of the Thomas Laughlin Co.

Ferry Joins Mojonnier

Royal T. Ferry, former technical director of Valve Corp. of America, Inc., Bridgeport, has joined the Mojonnier Associates Division of Kartridge-Pak Machine Co. of Franklin Park, Ill. He will be assigned to Mojonnier's New York office and will serve the company's customers throughout the East.

Mr. Ferry has been in the aerosol industry since 1949, when he joined the aerosol staff of Bridgeport Brass Co.

•

Matchabelli Changes Staff

Prince Matchabelli, a subsidiary of Chesebrough-Pond's Inc., New York, and a major cologne marketer, has announced three executive changes. Andrew A. Lynn, vice-president in charge of domestic marketing for the parent company, has become president of Prince Matchabelli in addition to his regular duties. Owen Stoner, who had been president, returned to Vick Chemical Co. as a vice-president.

Paul P. Woolward, former sales vice-president of Matchabelli, has been appointed vice-president for marketing.

Collapsible Tube Shipments Off, Aerosols Blamed

COLLAPSIBLE tube shipments were off 8.5% in '58 as against '57, the Collapsible Tube Manufacturers Council revealed last month. Shipments in 1958 totaled 1,004,947,000 units, while those for the previous year (a record) were 1,089,839,000. The council attributes the volume reduction to the general drop in business during part of the year, coupled with the initial impact of aerosol containers for dentifrices.

"The early effect of aerosol packaging on collapsible tube volume was significant," the council report said. "This is in line with past experience in the tube industry, and reflects heavy introductory promotion of new packaging, plus the novelty aspect which traditionally had wide popular appeal in the U.S. consumer market for a period of time." The report makes special mention of the fact that December shipments of collapsible tubes were up 6.5% (or 5,690,000) over the previous year.

"The initial impact of aerosol containers appears to be diminishing and the collapsible metal tube is apparently resuming the consistent growth trend which has marked its record as a fluid container for more than a century. The December upturn was based largely on increased consumption for dentifrices, which took 51% of total tube shipments during the the month, as compared with 49% in December, 1957. Shipments for toothpaste in the final month totalled 48,489,856 units, an increase of 6,422,480 or 14% as compared with December, 1957."

The council also reported gains in December for shaving creams and household and industrial products.

THE WORLD OVER

KLM

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"It seems like we just took off!"

The trip is over! And it was such a royal pleasure, you lost track of time. But that's always true of flying KLM, the world's first airline. The service aground and aloft is so decidedly Dutch – courteous, efficient, meticulous.

The hostess, for instance. She can spot the "first timer" in every flight. A few friendly words, a pillow at the head – and the passenger feels as secure as he would cat-napping at home. Forty years of experience in air travel have given the Flying Dutchmen of KLM a special "insight" and an extra measure of skill. You'll notice this whenever *you* go Royal Dutch. See your Travel Agent or call your nearest KLM office.

KLM Royal Dutch Airlines, 430 Park Avenue, New York 22, N. Y.

Root Predicts Aerosols May Replace Hypodermic Needles

PUSH-BUTTON containers may eventually replace hypodermic needles as a means of carrying drugs to the bloodstream. This and other applications of aerosol packaging technology were predicted February 10 by Morris J. Root, technical director of G. Barr and Co., Chicago, in an address to the Central Regional Conference of the Pharmaceutical Manufacturers Association in Chicago.

Mr. Root reported that scores of pharmaceutical products improve in function by being packaged in aerosol form. He pointed out that aerosol spray inhalants, now being used successfully for asthma and cold relief, suggest future possibilities for administering other drugs commonly administered by injection. Aerosol inhalants would transmit the drugs to the circulatory system, through the lungs, almost as rapidly as by intravenous injection.

The chemist also described an aerosol packaging application as a convenience to pharmacists in dispensing prescription ointments: "If the pharmaceutical house supplied the druggist with ointments in large aerosol containers, the druggist could dispense by push-button into small jars, avoiding the necessity of compounding the ointment in the pharmacy. Bulk supply in any other type of container would not keep the supply of ointment air tight, free from contamination and oxidation, as it is in a pressurized container."

The volume of pharmaceutical aerosols, which has lagged behind cosmetic, toiletry, and household spray packaging, has recently taken a major uptrend, Mr. Root pointed out. The 1½ million aerosol drug units produced in 1955 quadrupled in 1957, and he declared that production is "more than likely" to reach 17 million aerosol units in 1959.

Mr. Root noted that the pharmaceutical industry has been traditionally conservative in character, carefully watching innovations and determining product stability and acceptance before going to market with something new. By now, however, he believes that leading drug manufacturers are concluding that pressure packaging offers important advantages to drug products. Market success of smaller companies' aerosol drugs has encouraged the larger firms to enter their products in the push-button field.

Aerosol technical advances spurring volume of pressure packaged drugs include the relatively new use of nitrogen as a propellant, a system that overcomes certain limitations imposed by liquefied gas propellants and opens up new possibilities for spray drugs, Mr. Root said. For example, because nitrogen is non-toxic, it can be used in aerosols that are ingested. Nitrogen permits pressure dispensing of viscous products, such as vitamins, syrups and ointments. In addition, compressed gas propellants, such as nitrogen, make possible the aerosol dispensing of many aqueous products which are not compatible with liquefied gases.

Mr. Root also reported that the development of the metered valve, for dispensing measured doses, and the oral and nasal adaptors for inhalants had also expedited development of pharmaceutical aerosols. He advised the drug manufacturers to "take a new look at your products and re-evaluate their potential for pressure packaging in terms of recent technical developments and success of increasing numbers of drug products on the market."

•

Penick Announces Consolidation

The domestic operating activities of S. B. Penick & Co., New York, last month were consolidated into three divisions, all of which carry new designations.

The NYQ Chemical Division replaces the New York Quinine & Chemical Works Division, and will include antibiotics as well as the present line of fine and industrial chemicals.

The Botanical and Allied Products Division encompasses the company's activities in botanicals and their derivatives; drug extracts; essential oils, flavor and perfume compounds; gums, spices, etc.

The Farm Chemical and Insecticide Division has added feed grade antibiotics to its previous list of specialized chemical and insecticide items.

The changes have been made in the interest of simplification and greater operating effectiveness.

•

Canco Names King, Bernard

The Canco Division of American Can Co., New York, last month announced the appointments of David G. Bernard as general manager of sales and of J. Whitney King as manager of sales promotion and advertising. Mr. Bernard was formerly assistant general manager of the commercial development department, and Mr. King formerly headed Canco sales promotion activities, which have been combined with the division's advertising functions.

J. W. King D. G. Bernard

Prior to joining American Can in 1958, Mr. Bernard was assistant director of marketing for Hawaiian Pineapple Co. and was manager of container products of Dewey & Almy Chemical Co. (a division of W. R. Grace & Co.).

After joining the company in 1935 as a buyer, Mr. King moved into the company's marketing organization. He has held executive positions in sales promotion, marketing, and advertising since 1939.

At the same time the division announced the appointment of V. X. Kelly as superintendent of the company's container-making plant in Denver. Mr. Kelly, who has been with American Can for 21 years, was formerly liaison representative between beverage customers and Canco plants in the Eastern area.

Equipment—Processes—Bulletins—

Owens-Illinois Unveils New Plastic-Coated Glass Container

A NEW technique for manufacture of improved plastic-coated glass aerosol containers has been developed by Owens-Illinois Glass Co., Toledo, O., it was announced early last month by S. F. Davis, vice-president and general manager of the company's Glass Container Division.

The new process was perfected by the company's Engineering and Packaging Research Divisions after years of extensive development. The process is said to produce a container in which "the glass and plastic coating become as one." Mr. Davis reports that this refinement offers a number of advantages to the packager, and that the containers can be used for both liquefied and compressed gases. The company does not supply valves and fitments.

While present users are mainly in the toiletries and cosmetics field, the new Owens-Illinois packages are being considered and laboratory tested for a variety of products in the pharmaceutical, proprietary, household and chemical, and other fields. According to Mr. Davis, the company has available a group of stock designs in various capacities, and is prepared to produce containers within prescribed limits in a variety of shapes, sizes, and a wide range of brilliant stock, as well as individual colors of plastic coating, printed in one or two colors.

The containers are being produced at the company's Fairmont, W. Va. plant.

•

"Aero Incense" Fragrances

A new series of specially designed "Aero Incense" fragrances has just been announced by Givaudan-Delawanna, Inc., New York. The result of a long research program on incense odors conducted by the company's aerosol and perfume laboratories, they are said to fulfill a current need for the enhancement of the atmosphere in homes and to create odor moods similar in nature to "mood music".

The "Aero Incense" fragrances all have the typical incense-type odor associated with the burning product. These fragrances are effective in covering mal-odors and have a long residual effect. They are available in such odor types as rose, sandalwood, wisteria, oriental and others.

More detailed information is available from Givaudan-Delawanna, at 321 West 44th Street, New York 36.

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New British Lubricant

Moly-Paul Ltd., Park Royal Road, London N.W. 10, England, has announced a new product called "Molyvapour-bond", which is claimed to be the first British-made molybdenum disulphide aerosol product and the first to incorporate an agitator. Sprayed as a solid lubricant film, it can be used as an anti-seize material for hot and cold screw threads, for dry lubrication for machinery and instruments, and for surface lubrication. It has an operating temperature range of −128°C. to +370°C.

•

Discharge Rate Measurer

A new aerosol discharge rate determination apparatus has been announced by Builders Products Division of Builders Sheet Metal Works, Inc., New York. The apparatus can be used to measure whether or not the product is being used up too quickly or too slowly due to improper valve or actuator. It may also be used to determine how many times the actuator will have to be pushed to expel the contents, and can also be employed as an automatic spray unit for checking odorants, deodorizers, insecticides, etc.

In operation, all tests are carried out by using the same temperature and number of actuations. The container is weighed before and after to give the amount used by each valve or actuator tested.

The experience of more than a decade shows that U.S.I. anhydrous (water-free) alcohols help prevent clogging of the valve . . . a fact that takes on more and more importance as competition increases among aerosol products.

Furthermore, U.S.I. specially denatured alcohols contribute to a steady spray rate and promote even particle distribution. This results from their outstanding compatibility with a great variety of concentrates.

Because U.S.I. anhydrous alcohol formulas are free of water, water-corrosion of containers is eliminated as is water-insolubility of aerosol ingredients. They are produced under rigid quality controls that assure uniformity of specifications. Nationwide distribution assures you of prompt service and delivery of tank, drum or 5-gallon quantities.

If you have a specific aerosol problem perhaps a U.S.I. Technical Service representative can help you find a practical and economical solution. Write for technical data and prices.

U.S.I. INDUSTRIAL CHEMICALS CO.
Division of National Distillers and Chemical Corp.
99 Park Ave., New York 16, N. Y.
Branches in principal cities

Risdon Announces First All-Purpose Metering Valve

THE first "universal" large-capacity aerosol metering valve, usable with all types of propellants now available and capable of dispensing vitamins, sugar substitutes, eye and mouth sprays, foods, and other products in accurately measured quantities of several cubic centimeters, will be introduced shortly by The Risdon Manufacturing Co., Naugatuck, Conn.

The new "Magna-Meter" valve will "constitute a major breakthrough in aerosol packaging," according to Donald S. Tuttle, Jr., sales manager of Risdon's Valve Division, because it is the first large-capacity metering valve to perform satisfactorily with all propellants, including nitrogen.

The "Magna-Meter" is said to be able to dispense foam, spray or liquid products in measured quantities of 150 milligrams (.150 cc's) up to 2,500 milligrams (2.5 cc's), with still larger capacities in the offing. Most presently marketed metering valves could dispense only minute bursts of spray, and, as a result, have been used primarily for perfumes.

As described by Walter C. Beard, Jr., director of research, the new metering valve was made possible by adding an auxiliary chamber of aerosol-resistant synthetic rubber to the company's standard metering valve. The new valve can be used with different types of actuators, depending on the product to be dispensed. It is also reportedly the first metering valve that can be used to spray water-based aerosols.

The "Magna-Meter" valve, Mr. Tuttle predicted, will open limitless possibilities for aerosol packaging, especially of pharmaceuticals and foods. For instance, the valve size giving the smallest dosage, .150 cc's, could dispense nasal and oral sprays. Liquid vitamins might utilize the auxiliary chamber which permits a .3 and a .6 cc dosage. One and two cc dosages could be used for liquid noncaloric sweeteners, hand creams and lotions. Massive dosages of several cc's will lend themselves to food products, veterinary products and a variety of pharmaceuticals.

The combination of aerosol packaging and a metered "massive dosage" has many special advantages for pharmaceutical manufacturers, Mr. Tuttle pointed out. Like all aerosols, the package is hermetically sealed, preventing contamination or deterioration of the contents; and because vitamins when exposed to air deteriorate rapidly, manufacturers ordinarily over-concentrate the dosages to compensate for increasing deterioration during the package's open-shelf life, he explained. Packaged as aerosols, vitamins will retain their original composition for the entire life of the package, making over-concentration unnecessary. The metering valve will eliminate the need for middle agents such as tablespoons, eye-droppers and so on. Finally, the aerosol metering valve insures that an accurately measured dose will be dispensed, no more no less.

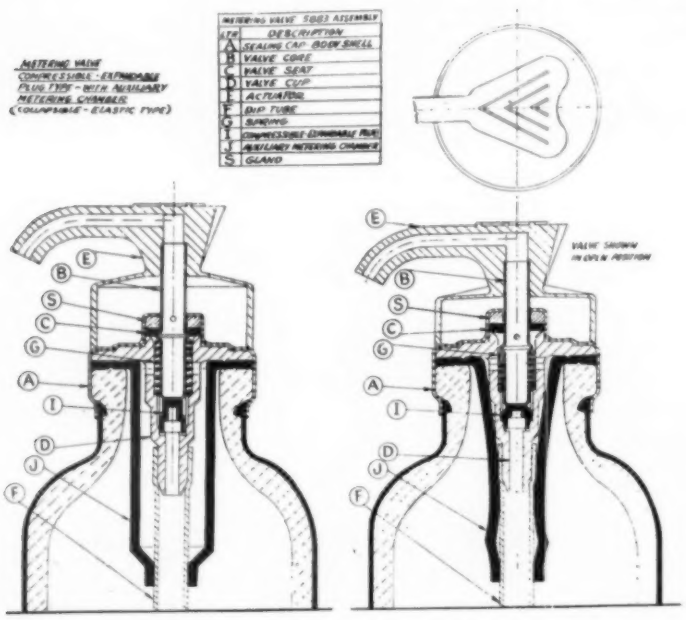
Until the new development, Risdon has manufactured two metering valves —a standard metering valve for a 20 mm finish container and a smaller metering valve for a 15 mm finish container which is used principally in the "Mini-Mist" purse-size perfume dispenser.

A search for a large-capacity metering valve to dispense colognes led indirectly to the new large-capacity valve. Another factor was the demand for a metering valve with which nitrogen could be used as the propellant, since it is the only propellant approved by the Federal Food and Drug Administration for foods and pharmaceuticals. Nitrogen also is the

(*Continued on Page 62*)

The valve at left is in closed position, at the right, open. Secret of the valve's ability to dispense comparatively large amounts of product is the auxiliary metering chamber (J) made of Buna-N, a highly aerosol-resistant rubber, which surrounds main metering chamber. When actuator is pressed, downward thrust of core (B) causes the valve's compressible-expandable plug (I) to expand. This seals off the product in the main body of the container from the measured amount of product that is to be expelled from the main and auxiliary metering chambers. At the same time the orifice that permits the product to leave the package is opened and th product in the metering and auxiliary chambers is dispensed as the gas pressure in the top of the container collapses the rubber chamber. The size of the auxiliary chamber is varied to determine the precise amount of the metered burst.

When the finger's pressure is removed (E) the core returns to the off position allowing the plug to return to its original shape and position. The pressure exerted by the propellant then forces a new supply of product up through the dip tube and into both chambers until the pressure inside them equals the pressure in the rest of the package.



Dip Tube by Automation

Action Plastics, Paterson, N. J., specialists in the manufacture of aerosol dip tubing, have announced development of an automation process to produce and spool tubing automatically. The announcement said that elimination of the labor cost factor has enabled Action to lower its tubing prices.

The automation process has been in operation for several months, and production has been doubled to 750,000 feet per day to meet increasing demands for the new product, which Action reports has excellent dimensional control and better stress-crack resistance.

The company is currently producing a number of grades of tubing for conventional aerosols, food aerosols, fire extinguishers, and drop-by-drop dispensing. A very recent development is the production of rigid vinyl tubing, for lotion pumps, which according to the company, has greater gloss, rigidity, chemical resistance and better dimensional control than anything heretofore available.

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Riker Obtains New Patent

A pioneer medical invention which should be a boon to asthmatics has been patented by Riker Laboratories, Inc. of Northridge, California. The patent, which relates to self-propelling solution compositions to provide aerosol inhalation therapy for diseases such as asthma, represents the first successful development of a fluorinated hydrocarbon-based self-propelling medicinal for direct inhalation.

Riker has developed a line of products on this basis under the trade mark "Medihaler." The patent, No. 2,868,691, was granted by the U. S. Patent Office January 13, 1959. Further patents are pending in the U. S. and overseas.

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"Fragrant Life Reprints"

Dodge & Olcott, Inc., New York producer of aromatics and essential oils, has issued a new reprint of its monthly series in its external house organ called "The Fragrant Life". The 15-part series is a brief but comprehensive survey of some of the newer aspects of the vast odorants field, describing the application of fragrance to such diverse industries as medicinals, fertilizers, pet products, etc. Included in many of the chapters are discussions of the role of perfuming materials in aerosol products.

Copies of the 40-page reprint are available from the company at 180 Varick Street, New York 14.

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WARF Services Booklets

The Wisconsin Alumni Research Foundation, Madison, Wis., last month issued a new series of booklets describing specific tests and services performed by its various laboratories. Of particular interest to the aerosol industry are those about the insecticide testing laboratory, bacteriological services, toxicity testing, food technology, all of which are used in some phase of aerosol products development.

For instance, in the insecticide folder are listed and described the Peet-Grady Method, the CSMA Aerosol Test Method for Flying Insects, the CSMA Cockroach Spray Test Method, the CSMA Cockroach Aerosol Test Method, the CSMA Textile Resistance Test, Determination of Residual Activity, and the Dosage-Mortality Test.

•

Metered Valve Prices Cut

A 10-percent decrease in prices of metered valves, "Mist-Top" actuators and stainless steel inner containers, effective immediately, has been announced by Valve Corp. of America, Bridgeport, Conn. This is believed to be the first price cut in metered aerosol components, and according to the company was based on increased sales and improved production facilities, including introduction of new equipment and a greater degree of automation in production lines.

"Further reductions may be forthcoming," said Mr. Philip Sagarin, VCA president, "if developments on which we are now working are reflected in increased use of metered valves."

COLTON -ALPHA AEROSOL EQUIPMENT

Rotary Liquid Product Fillers
Rotary Vacuum Purge Crimpers
Rotary Gassers and Shakers
Rotary Testers
Rotary Pressure Fillers
Roto-Index and Laboratory Units

Your inquiries are invited

ARTHUR COLTON CO.
3414 E. Lafayette
DETROIT 7, MICHIGAN

Product Homogenizer

The "Jet-Mogenizer," a unit that incorporates three stages of homogenization with increased capacities ranging from 150 to 500 gph., has been developed by Buschman Products, Inc., 369 Lexington Ave., New York, after three years of development. Four models of the new unit are available.

The new rotor embodies a new concept in rotor design to multiply the combined forces of interparticle attrition and turbulence impacting the fluid mass through a vibratory spline pattern rotating at about 4500 fpm. These effects are further magnified by throwing the rotor/stator splines out of register so as to set up eddying hydrodynamic pressure impulses at ultrasonic frequencies. Degree of dispersion and particle size is controlled through micrometer adjustment of stator. The unit is self cleaning and can be taken apart in 60 seconds. It is presently being used in aerosol filling plants as a product homogenizer.

•

Air Reduction Brochure

The customer service packaging laboratory of Air Reduction Co., 1400 East Washington Avenue, Madison 10, Wisc., has issued a new brochure describing its various services in the food field. Included are both photographs and descriptions of the functions of the laboratory.

•

Code Date Dispenser

Kiwi Coders Corp., Chicago, has announced the availability of a new dispenser and printer for "Scotch" brand pressure sensitive tape. The tape is printed on the sticky side with reverse type and is used in the packaging field to code date the tape or print a small message.

Fairfield to Sell "Crag"

Fairfield Chemicals Division of Food Machinery and Chemical Corp. last month concluded an agreement with Union Carbide to sell that company's "Crag" fly repellent. Fairfield will make the repellent available to formulators either alone or in combination with Pyrenone, Fairfield's piperonyl butoxide and pyrethrin concentrate.

The combined formulations have proven highly effective against flies that are resistant to other insecticides. They offer rapid knockdown and a high degree of kill plus a notably longer repellent period for animals in pasture. The formulations have been registered with the USDA on a "non-residue" basis for use on meat and dairy animals, and, according to Fairfield, do not form residues in milk or meat.

A solvent and coupler, as well as a solubilizing agent for a wide variety of insecticides, "Crag" fly repellent can be included with safety in many formulas. Its low toxicity results in absence of irritation when used as directed. It is reportedly effective against biting flies, horn flies, horse flies, stable flies, house flies, mosquitoes and gnats on animals. Further information about specific formulations is available from Fairfield Chemicals at 441 Lexington Avenue, New York 17.

•

New High Vacuum Pump

A new 1100 C.F.M. capacity high vacuum pump has been added to the line of the Beach-Russ Co., 420 Lexington Ave., New York 17. At present the new model is available in dry, vapor purge, and two-stage models. It has reportedly proven to be extremely quiet in operation and free of excessive vibration. It works on a direct, positive rotary motion and does not depend on gears, heavy slide valves, eccentric rotors, springs or centrifugal force, which could cause excessive vibration and noise in operation.

A 16-page catalogue on the new pump is available directly from the company.

New Gas Chromatograph

A newly developed gas-liquid chromatograph which gives promise of considerably simplifying analysis and monitoring procedures for a number of materials including: chemicals, soaps, essential oils, foods, synthetics, pharmaceuticals, and biological products, is being marketed in the U. S. by Jarrell-Ash Co., Newtonville, Mass.

Produced by Britain's W. G. Pye & Co., Ltd., and based on a design by Dr. James E. Lovelock, the Pye Argon Chromatograph employs an ionization detector system which enables it to detect as little as 2×10^{-11} moles of most organic substances. In contrast with conventional chromatographs employing thermal techniques, the new chromatograph's ionization detector system maintains stability and reproducibility virtually independent of such variables as temperature, pressure, or flow rate. Degree of control is set solely by column requirements.

Since the instrument readily accepts samples as small as 0.025 microliter, column overloading is prevented and efficiencies of over 1000 theoretical plates per column foot are obtained. Analysis time is reduced by use of short, high efficiency columns. Only a single calibration curve is required for most molecular species.

•

Anti-Scuffing Lubricant

An anti-scuffing lubricant in aerosol form has been introduced on the British market by Rocol, Ltd., London. It contains a formulation of molybdenum disulphide and a bonding resin, which is used to effect a film on metal or plastic surfaces. The product is sold in 12-ounce containers and will retail for the U.S. equivalent of $3.50.

•

Insecticide Registration Sought

W. R. Grace & Co., through its Davison Chemical Division, Baltimore, Md., has made application to the USDA for permanent registration of "Dri-Die Insecticide 67". If granted the application will enable the company to begin commercial marketing of the product.

In making the application, Davison listed the ingredients as 100% active, comprising silica gel and ammonium fluosilicate. The presence of the latter chemical had not been disclosed previously because of patent consideration.

The silica gel in the insecticide, in the form of very light powder known as aero-gel, kills insects by attacking the essential outer waxy layer. Since this is a physical action, researchers believe that the pests may not acquire tolerance for the product.

Evans Research Booklet

"Can You Afford 60 Additional Scientists?" is the title of a new booklet just issued by Evans Research and Development Corp. This new publication tells how the clients of this leading New York City independent chemical research and development laboratory benefit from the combined talents of 60 diversified scientists.

The folder describes the varied activities of Evans Research in the chemical, physical and bio-chemical fields, and includes a list of some of the industrial organizations and government agencies that consult Evans Research.

Copies are available on request.

•

Reverse Tapered Cap

A new low cost reverse tapered aero cap has been announced by The Walter Frank Organization, 4100 Warren Ave., Hillside, Ill. Made of high impact styrene, the caps are being stocked in white, red, yellow, black and turquoise.

BUILDER'S PRODUCTS

AEROSOL CAN DISPOSAL and PRODUCT RECLAIMING DEVICE

Prevent accidents due to incinerator Explosions

Fits all size Aerosol Cans to be disposed of or for reclaiming products, by piercing the valve cap or bottom. The product then flows into a pail to be salvaged.

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that have proved their effectiveness in the production of industrial and consumer products

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OIL BOUQUET E.T. No. 3126
OIL BOUQUET P.C. No. 3127
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WHO'S WHO IN THE AEROSOL INDUSTRY

George Hartz, who recently joined the sales staff of Prentiss Drug & Chemical Co., New York, is acknowledged to be one of the real authorities in the insecticide industry, and has been in that field since 1934.

An industrial chemical engineering graduate from Pratt Institute, he joined Magnus, Mabee & Reynard in 1928 as a chemist on essential oils, perfumes, aromatics, and drugs. From there he moved to Seil, Putt, & Rusby (in 1934) where he did extensive analytical work with insecticides, drugs, pharmaceuticals, essential oils, perfumes, spices. Here he handled all pyrethrum and rotenone analysis as well as that on such older insecticides as the arsenicals, and nicotine sulfate.

After five years at Seil, Putt, & Rusby, in 1940 Mr. Hartz became chief chemist for John Powell and Co., and there too he worked with pyrethrum, rotenone and other insecticides. In this position he gained wide experience in quality control, sales and customer service, research and development, etc.

In 1942, when the Government aerosol program got under way, he supervised Powell's revision of its pyrethrum extract to meet new Government aerosol specifications. He conducted the research and development of this product, and in the process of getting it into production worked closely with USDA chemists and early aerosol fillers. During this period he helped set up several company laboratories and instructed aerosol fillers on pyrethrum analysis, packaging techniques, etc.

After the war, with the expanded activities in the aerosol and insecticide fields, Mr. Hartz also worked with DDT, and in 1946 spent a four-month period in Argentina assisting in the establishment of a new insecticide plant there.

From 1947 to 1950 Mr. Hartz was technical sales manager for agricultural chemicals for Orbis Products Corp., and when that company disposed of its insecticide line in 1950 he rejoined Powell as specialty sales manager. From that date on he has traveled extensively to aerosol plants throughout the country, providing technical assistance to aerosol fillers and research groups.

Mr. Hartz is a familiar figure at meetings of the Chemical Specialties Manufacturers Association, which he first attended just after World War II, and is also a regular attendee at conventions of the National Agricultural Chemicals Association. He has written technical articles on insecticide formulation for *Aerosol Age* and other trade periodicals.

Gordon S. Lang, president and general manager of Connecticut Chemicals (Canada) Ltd., Toronto, has been actively associated with the aerosol industry since 1950, when he became general manager of the company on its inception in May of that year. Since that time he has been instrumental in guiding the growth of the company from its original ten employees to more than 90 at present.

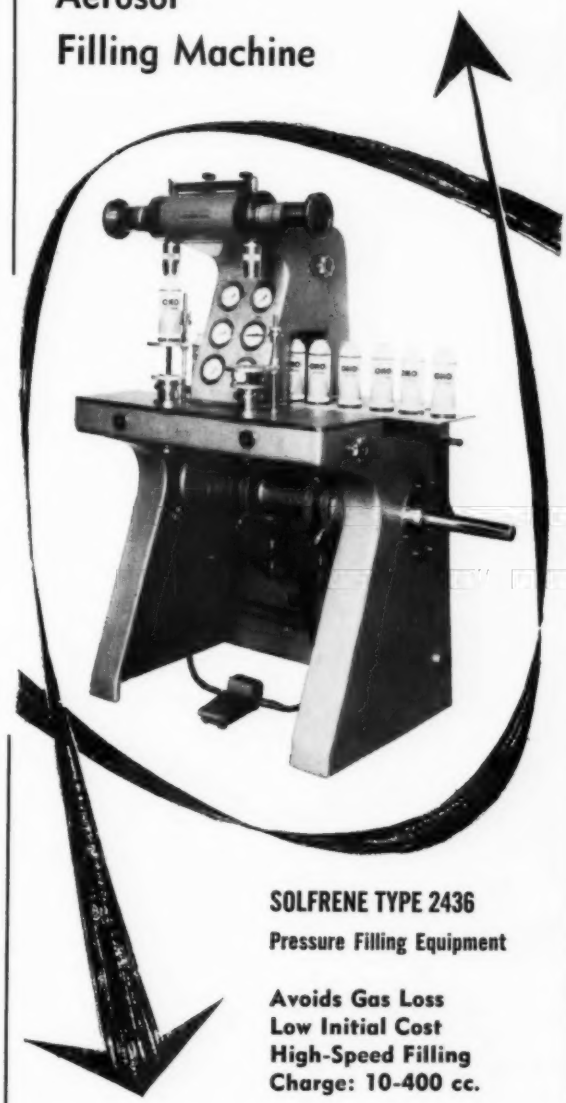
A native of Toronto, he was educated in Toronto schools and obtained an engineering degree from the University of Toronto in 1949. Between high school and college he spent two years in the Canadian Army.

Since 1951 Mr. Lang has been associated with the CSMA, and is one of the founders (and first treasurer) of the Canadian Manufacturers of Chemical Specialties Association. He is also one of the relatively few aerosol executives who is a member of the Young Presidents' Organization, a group who have attained their presidency prior to their 40th birthday.

Mr. Lang is married and the father of two children. His hobbies are golfing, water skiing, and fishing.

SOLFRENE

Aerosol
Filling Machine



SOLFRENE TYPE 2436
Pressure Filling Equipment

Avoids Gas Loss
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High-Speed Filling
Charge: 10-400 cc.

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for any Type Application

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36, Merkur Strasse
Zurich, Switzerland

Supplying internationally for aerosols

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- Advice and Consultation

Valve Clincher
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Bottles
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All Products manufactured to our own Designs, Formulations and Patents. Valves available from Germany and Italy—Filling Machines from Germany—Laboratory Equipment and Concentrates from Switzerland.

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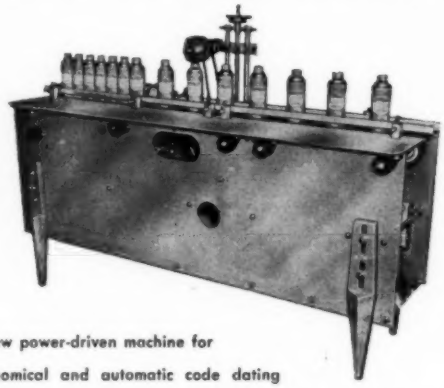
Aerosol Container

CODE DATING MACHINE



a new power-driven machine for economical and automatic code dating the concave bottoms of pressurized cans or flat bottoms of other round containers with work table area. Will mark top, bottom, or both at the same time.

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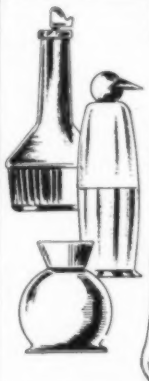

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THE AEROSOL INDUSTRY

A complete listing of Federal, State, and local governmental agencies and their regulations governing aerosol shipment, packaging, and sale.

119 pages, $10.

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Perfumers' Society Lists Program

The program for the 5th annual Open Symposium of the American Society of Perfumers to be held at the Essex House, New York, on April 20, 1959 has just been announced by Edward Shuster, chairman of the Symposium Committee. The program will consist of seven papers on the subject of "Instrumentation and the Perfumer." The speakers and the subjects of their papers will be:

- E. Fearns, research chemist of van Ameringen-Haebler, Inc., "Introduction to Instrumentation"
- Dr. D. Hooker, Procter and Gamble: "Aromatics and Natural Raw Materials"
- Dr. J. S. Jellinek, perfumer of Polak's Frutal Works: "Raw Materials and Aromatics from the Supplier's Angle"
- V. D. Johnston, chief analytical chemist, Givaudan - Delawanna, Inc.: "Instrumental Methods of Analysis and the Perfumer"
- G. Fuller, chief perfumer, Colgate-Palmolive Co.: "An Investigation into Lavandin"
- H. Cuttler, perfumer of Revlon, Inc.: "Raw Materials and Finished Perfume Products"

A speaker to be announced will discuss the problems involved in instrumental analysis from management's point of view.

During the symposium, Dr. P. Jellinek of Polak's Frutal Works will receive an honorary membership in the society in recognition of his contributions to the field of perfumery.

Following the symposium, cocktails and a buffet supper will be served. Reservations, at $12.50 per person, can be made by addressing requests to: Mr. Edwin D. Morgan, Jr., c/o Lever Bros. Research Center, 45 River Road, Edgewater, New Jersey.

•

Pennsalt Names Two in Mfg.

Pennsalt Chemicals Corp., Philadelphia, has announced that John Seel, formerly chief engineer at the Calvert City Works, will become plant manager at Natrona, Pa. Replacing him at Calvert City will be E. Vallance Winslow, senior project engineer on the "Isotron" project.

Mr. Seel spent 22 years at the Natrona plant in various engineering posts before his current five-year assignment to Calvert City. A member of the American Society of Mechanical Engineers, he is a graduate of Pennsylvania State University.

Mr. Winslow, a graduate of Drexel Institute of Technology, will be responsible for engineering and maintenance at the Calvert City complex. Since he joined Pennsalt's central engineering department in 1954, he has supervised several major plant construction projects, most recently the "Isotron" plant for the production of aerosol propellants.

•

Four Join Fuld Staff

Fuld Brothers, Inc., Baltimore custom filler, has announced the appointment of four new staff members. Heading the list is Dr. Erwin Hoess, who joined the company's research and development department. Jerome J. Grabus was named to direct and coordinate the activities of the customer service department.

The other new appointments include that of Emory Rice to the post of assistant to the sales manager in the customer relations department and of Donald Denton to the accounting department.

Givaudan Appoints Mills

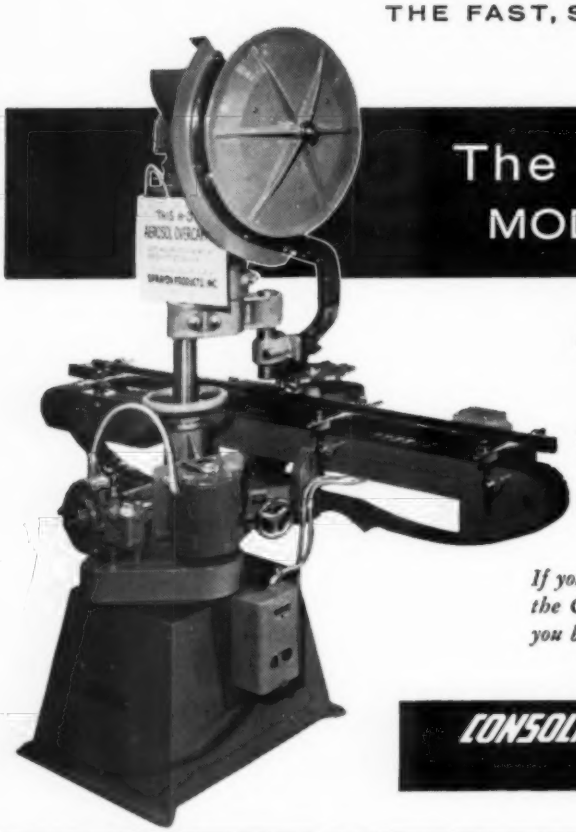
Givaudan-Delawanna, Inc., and its associate companies, Givaudan Flavors, Inc., and Sindar Corp., all of New York, last month announced the appointment of Don F. Mills as a sales representative in the New York-Connecticut area. He received a bachelor of arts degree from Duke University in 1955, entered the U. S. Navy in 1956. He joined Givaudan in January 1958 and has undergone an intensive training program in preparation for his present assignment.

•

Markem Forms New Division

Markem Machine Co., Keene, N. H., manufacturers of marking machines for the aerosol and other industries, has announced formation of a Chemical Division. The new group will be responsible for sales and service of the company's machines to the chemical, cosmetic, pharmaceutical, and paint and varnish industries. It will be headed by John G. Powers, with the title of manager of the new division.

THE FAST, SURE WAY TO APPLY
AEROSOL OVERCAPS



The CONSOLIDATED
MODEL H-O-F CAPPER

Automatically sorts and applies all the various types of aerosol caps now being used.

Applies odd shapes as well as conventional types.

Equipped with variable speed controls and can be arranged for speeds from 60 to 250 caps per minute.

Changeover from one size container to another can be made easily and quickly.

Easily fitted into any aerosol filling line.

If you are using aerosol containers, be sure to get all the facts about the Consolidated H-O-F Capper for applying the overcaps before you buy.

Write for complete information

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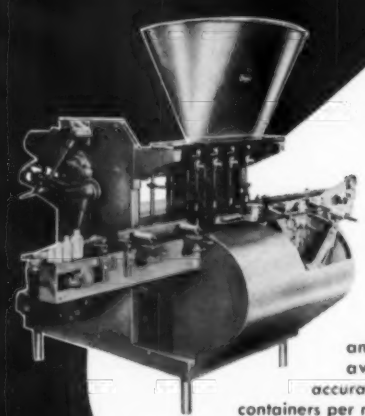
1400 West Ave., Buffalo 13, N. Y.

VERSATILE · ACCURATE
MULTI-LINE FILLER



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TYPE 19A

The 4 line model accurately fills 50 to 100 containers per minute . . . 6, 8, and 10 line models also available capable of accurately filling up to 250 containers per minute. Hope Type 19A Filling Machines are now in *profitable* use from coast-to-coast, filling liquids, semi-liquids, or viscous products in jars, plastic bottles or tin cans. For high speed, accurate filling machines look to the leader —

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write for list of formulas and other data

Beirn to Revlon Post

F. Kenneth Beirn, president of C. J. Lalloche & Co., Inc., New York Advertising agency, last month was appointed vice-president in charge of advertising of Revlon, Inc., major aerosol marketer. The appointment aroused widespread interest in the New York advertising world, mainly because of what the *New York Times* described as "The volatile nature of marketing activities at Revlon plus the many key agency posts held by Mr. Beirn in recent years."

During the past six years, Mr. Beirn has also been president of the Biow Co., Biow-Biern-Toigo, Inc., and Ruthrauff & Ryan, Inc., all major agencies. After the latter of these companies was merged with Erwin Wasey, he became senior vice-president of that new agency, Erwin Wasey, Ruthrauff & Ryan, Inc.

•

Gilbert Plastics' New Plant

Gilbert Plastics, Inc., aerosol overcap manufacturer, last month completed a move to a new plant at Kenilworth, N. J. The new one-story structure, which is located on Boright Ave. in the Ken-Acres Industrial Park, was designed especially by the company's engineers for high speed cap production.

Gilbert was founded in Gilbertville, Mass., nearly 20 years ago, and had been located in Hillside, N. J. for the past ten years.

•

Mojonnier Ships to Italy

Mojonnier Associates Division, Kartridge-Pak Machine Co., of Franklin Park, Ill., recently shipped a combination pressure and cold fill aerosol line to Prato, Italy.

This line is designed to fill extruded aluminum containers, as well as conventional cans and glass aerosols. It was pre-assembled and tested at the Mojonnier Plant and then was broken down into easy-to-ship units that will be hooked together at their destination.

The Italian concern, Ditta-Ruggero Benelli "Super Iride", selected a combination pressure and cold fill line to afford them maximum versatility in packaging a wide variety of products for the growing Italian aerosol market. Further evidence of the expansion of the aerosol market in Europe is evidenced by the scheduled shipment of another complete pressure and cold fill line to Aerosol Service Italian this month.

•

Solvay Appoints Post

The Solvay Process Division of Allied Chemical Corp., New York, has named Daniel Post to be market research analyst.

•

Perfumers' Society Elects

The American Society of Perfumers holding its annual election of officers on Jan. 21, elected a new president, vice-president and director. For the year 1959 the Society will have the following panel:

Chairman: Jacques Masson, Flam-Haft Labs.; President: Oliver L. Marton, Shulton, Inc.; Vice-President: Bernard Polak, Polak Frutal Works; Secretary: Harry C. Saunders, The Givaudan Corp.; Treasurer: Edwin D. Morgan, Jr., Lever Brothers Co.; Directors: Herbert Sommer, Prince Matchabelli; Walter Lengsfelder, Fleuroma, Inc.; Elmer L. V. Sulik, van Ameringen-Haebler; John Hancock, Warner-Hudnut.

•

Magnus Greets Rockefeller

The Veteran Corps of Artillery of the State of New York, headed by Joseph Baird Magnus, Commandant, conferred on Nelson A. Rockefeller honorary membership on the occasion of his inauguration as Governor of the State, at the Capital, Albany, New York

The Corps, established in 1790, New York State's oldest military organization, is the official guard of honor of the Governor of the State, and for many years, has participated as one of the military units in the inaugural ceremonies.

Colonel Magnus is vice-president of Magnus, Mabee & Reynard, Inc., New York manufacturer and supplier of essential oils.

AEROFLEX® "P" DIP TUBES

- QUALITY CONTROLLED—Every shipment laboratory tested for crack resistance.
- Ideal for aerosols, atomizers, squeeze bottles and lotion pumps.
- Odorless, non-toxic, resistant to most filler and propellant chemicals, crack resistant through ANCHOR's exclusive formulation of polyethylene.
- Close tolerances maintained. Precision cut and stack packed tubes available.
- Nylon dip tubes extruded for special applications.
- ANCHOR also extrudes in all of the newest materials—polycarbonate, polypropylene, and rigid polyvinyl chloride . . . offering reliable service and on-time deliveries.

WRITE TODAY for "Extruded Plastics" brochure.

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Healey to Air Reduction

William H. Healey has been appointed new products manager of Air Reduction Chemical Co., a division of Air Reduction Co., Inc., New York. He will be responsible for the introduction of new products and the development of new markets. This recently-created post is part of Air Reduction Chemical's program of expanding customer service.

Mr. Healey was a sales engineer with General Aniline and Film Corp. for the past ten years. During the war he served as an industrial representative on the War Production Board. A graduate of Massachusetts Institute of Technology, Mr. Healey also has been an engineer with Arthur D. Little, Inc., and with General Chemical Co. He is a member of The American Chemical Society, Chemical Commercial Development Association, Chemical Market Research Association, and the Chemists' Club.

•

Schering Buys Wis. Co.

Schering Corp., Bloomfield, N. J., last month announced acquisition of American Scientific Laboratories, of Madison, Wis., a producer of veterinary biologicals, pesticides, and pharmaceuticals. The company, which last year had annual sales of $1.5 million, was acquired through issuance of Schering common stock for outstanding common and preferred stock of the Wisconsin company.

It will operate as a wholly-owned subsidiary of Schering, and will operate under its present executive management.

•

J&J Acquires McNeil

McNeil Laboratories, Inc., Philadelphia, has been acquired by Johnson & Johnson, New Brunswick, N. J., and will continue its operations without change in corporate name or management. According to a recent statement by Henry S. McNeil, the Philadelphia firm will not merge its departments with other Johnson and Johnson companies and will not change its marketing or discount structures.

A New Danger

(*From Page* 15)

controlled radiation with X-rays or other powerful physical agents. It was quite frequently noticed to develop in the Japanese who escaped immediate death after the atom bombing during the last war. Sometimes an obvious cause cannot be detected in patients with aplastic anemia. Specific treatment is not available for such damaged bone marrow, but the life of such patients may be maintained for many years by numerous blood transfusions. These persons live on borrowed blood."

In the absence of convincing expert medical testimony, it is certainly premature, indeed, to indict diethyl toluamide as being responsible, simply because use of a spray containing DET preceded the boy's death. Exhaustive study would be required to establish beyond question that the death was, in fact, the result of aplastic anemia, and to disclose every material in the boy's environment . . . including possible X-ray treatments . . . that could have contributed to development of the disease.

Until actual expert medical evidence has been presented, any responsible newspaper should shun such "scare" stories. The bereaved parents in situations like this are obviously unqualified, either emotionally or medically, to arrive at any valid conclusion.

M M & R Holds 25th Sales-Technical Conference

Magnus, Mabee, & Reynard, Inc., New York, essential oils manufacturer, held its 25th sales and technical conference Feb. 12-14 at the Warwick Hotel, New York. A highlight of the conference, which was attended by sales representatives and members of the executive, research and technical departments, was a symposium devoted to aerosol technology. Standing left to right in the photograph are: Joseph Baird Magnus, vice-president; Robert B. Magnus, Jr., assistant treasurer; Bernard Jeffs, director of advertising and conference chairman; Percy C. Magnus, president; Arthur H. Downey, director of research and technology; William Fischer, retired sales manager; George H. McGlynn, vice-president and treasurer; and Robert B. Magnus, Sr., vice-president.

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5. Free product development and sampling.
6. Free Products Liability Insurance.
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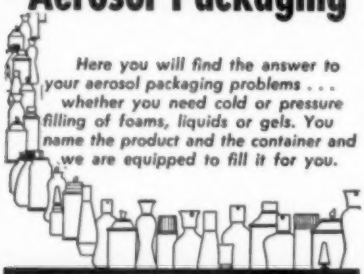

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Coale to Mohawk Post

Joseph T. Coale has been appointed West Coast sales representative for the Mohawk Brush Co., Albany aerosol marketer and custom filler. In addition to his new territory, he will continue to supervise the company's Midwest territory.

Aerosols in Review

(*From Page 34*)

pellants. To obtain a fine fragrance of lasting quality without such materials, which may well be considered the keystones of fixation, is no easy matter. . . . Sometimes, in place of such resins as opoponax, labdanum and oak moss, to cite three examples at random, it is possible to use the corresponding absolutes when necessary, in such a manner that there is practically little or no alteration of the given fragrance. Great care, however, must be used to determine just what amount of a given absolute is equivalent to a specific amount of a resin in the original formula. This is best done organoleptically. Then the void created by the use of a much smaller amount of the absolute must be balanced, and this is often a difficult part of the problem. Ingredients that are not very soluble in the propellant will precipitate out sooner or later, causing clogging of the valve as well as loss of fixation value of the perfume.

"Dipropylene glycol is often added to the perfume oil composition to the extent of from five to 15%. It is an excellent solvent for most perfume ingredients as well as for the halogenated hydrocarbons that are used as propellants. It is an excellent solvent for most perfume ingredients as well as for the halogenated hydrocarbons that are used as propellants Propylene glycol can also be used for this purpose, but dipropylene glycol is a better solvent."

Mr. Fein cautions that shelf testing should be extensive and should expose the products to temperatures identical to those which would be ultimately encountered in widely different geographical areas. Exposure to sudden changes of temperature is also of value.

THIS same issue of *Drug & Cosmetic Industry* contains the clinical details of the paper on aerosol hair spray inhalation, presented by Doctors Joseph Calandra and John A. Kay to the December meeting of the Scientific Section of the Toilet Goods Association. This paper was of particular significance in disproving the claims made against hair sprays in an article by three St. Louis doctors in the *New England Medical Journal* early last year, and was reported on in the January Issue of *Aerosol Age*.

Though the language of the article is highly technical, it serves as a good example of the type of product-testing apparatus and procedures that may be necessary for a wide range of commonly used products.

•

QUANTITY production has brought down the price of many aerosols in Great Britain, reports the Jan. 26th issue of the *Financial Times*, London financial and industrial newspaper. "However, as some people feel that 5s (70 cents) is a ceiling price for certain household goods, a reduction from 6s 3d (88 cents) to 4s 11d (69 cents) may bring an aerosol from the class of luxuries to that of necessities. This in itself should help the market to expand further, and this is, in fact, the sort of price reduction that is being made."

Container prices in Great Britain should come down during the coming year, the article suggests. Higher speeds of manufacture and increased efficiency, coupled with adequate supplies of cold reduced tinplate, should enable manufacturers to bring down prices for the first time since the war.

"This adequate supply is news, for a shortage of tinplate has dogged the industry ever since the war. Indeed, 1958 was the first year when the supply was plentiful, for at last the country had three modern cold-reduction mills with six electrolytic tinning lines. The completion of the third giant strip mill at Velindre in South Wales has put an end to the need to use plate from the old hand mills. The production of tin cans is both plentiful and of better quality

than ever before. The production of tin cans can now be planned with the assurance that the superior type of plate will be forthcoming. This opens the way to higher speeds, more consistent quality of work, a greater economy of materials, and new advances in the design both of processes of manufacture and of the products themselves."

•

THE subject of "Medicinal Aerosols" is discussed in some detail by Dr. John J. Sciarra, assistant professor of pharmaceutical chemistry at St. John's University, in an article in the January issue of the *New York State Pharmacist*. Though fairly basic in content, the article crisply and concisely sets forth the advantages of an aerosol:

"1. Since the medication is sealed in a pressurized container, there is no danger of contamination of the product with foreign materials.

2. The product is more convenient to use, since the package is a compact unit and can be applied or administered easily and quickly.

3. In inhalation, the medicinal agent is absorbed directly into the blood stream through the alveolar membrane; therefore, there is less danger of decomposition of the medication, since it does not pass through the gastrointestinal tract.

4. Substances given by inhalation therapy are, in most cases, more effective than when administered by other routes.

5. With volatile substances, inhalation therapy approaches intravenous therapy in rapidity of action.

6. When drugs are administered in aerosol form, a high concentration of drug over a limited area can be obtained. This is especially useful in the treatment of pulmonary tuberculosis with streptomycin and other drugs.

7. Through the use of metered-dose valves, uniform dosage is always obtained."

•

MORE on the new aerosol pressure filling machine, developed recently in Great Britain, is written by John H. Briston in the January issue of *Packaging*. Called the "Pres-fil", the new unit was described on page 50 of the February issue of *Aerosol Age*. According to Mr. Briston, "The metering chamber is a cylinder with a free-floating piston which is self-priming. This idea eliminates the possibility of vaporization occurring behind the piston, with consequent inaccuracies in filling."

"The filling head is specially designed to cut down propellant losses by reducing the volume between the cut-off point in the filling head, and the seal the head makes with the aerosol valve, to negligible proportions.

"The normal operation of the machine is as follows: The container is placed in a clip beneath the filling head and the platform automatically raises itself to bring the aerosol valve up to the filling head. A vacuum of about 20 inches of mercury is drawn (the exact amount can be adjusted as required), a metered amount of product is then fed into the can, followed by the required propellant charge. Each of these operations has a separate cut-off switch so that any of them may be omitted if required. The machine is designed to be easily accommodated in an automatic filling line. Speeds of filling are dependent to a great extent on the type of valve fitted. For a normal five-ounce container fitted with a Safca valve, the complete cycle takes about 15-17 seconds. This means that a single operator can achieve speeds up to 1700 per seven-hour day per machine. It is claimed that one girl can attend three machines." ★

Flying Insect Control

(*From Page* 21)

of the 12-ounce cans, where needed, and would be able to service a large number of establishments throughout the year.

Development of the automatic dispenser carries forward the significant contribution made to public health by the aerosol insecticide, since it not only utilizes a new principle of

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insect control, but insures protection throughout the day and night against disease-carrying insects.

For a long time, developments of the basic aerosol insecticide technique, first proven by scientists of the USDA for the Armed Forces in World War II, were largely confined to development of countless chemical combinations marketed by hundreds of manufacturers. The basic principle, however, remained the same . . . a little can with a colored button on top that became a household standby.

Rapid expansion of the aerosol field spurred further experimentation. The combination of some of these investigations culminated in advances never envisioned when the aerosol concept was first evolved. The automatic aerosol dispenser represents the fusion of a series of investigations.

Research activities of Fairfield Chemicals, a leader in the development of insecticides for aerosol use, were in the direction of less costly, more efficient aerosol insecticide formulations. The result was Pyrenone.

At the same time, Syncro-Mist was working on an automatic device which would deliver precise amount of aerosol spray at pre-determined intervals *without* the need for manual operation.

Research in still another area was being carried out by manufacturers of aerosol valves and fitments. Such organizations as Risdon Manufacturing Co., Valve Corp. of America, Inc. and Emson Research, Inc., were independently investigating valve types designed to give limited sprays, foam dispersions, and metered dosages. Experimentation and research brought break-throughs in each of these fields of investigation.

Fairfield technicians found that the effectiveness of an aerosol was directly related to the amount of active insecticide suspended in the treated area. If an insecticide formula with one part of toxicant in three grams of spray was effective, a concentrated formula containing six parts of toxicant in a half gram dose would perform equally well. This was the basis for the six-to-one ratio of the midget aerosol's effectiveness. Until the development of the metered valve such a method of treatment was impractical. Emittance rate of conventional valves was too high.

By August, 1957 the third essential component—the metered valve—was available. Valve Corp. of America placed in production a valve capable of controlled emission of metered amounts of spray. The valve has a release button especially designed by VCA engineers for use in the automatic dispenser.

Perhaps the greatest advantage of the Pyrenone Metered Aerosol, employed with the Syncro-Mist dispenser, is its automatic feature. No longer need the consumer, farmer, store owner, or plant maintenance worker concern himself with the time-consuming, unpleasant chore of periodically spraying the area. Once installed, the automatic dispenser works safely, silently and unobtrusively. It leaves no odor and effectively controls insects. As far as the consumer is concerned, insect control is reduced to a once-a-month problem, and then for only a few seconds as a used 12-ounce container is replaced with a new one.★

New Metered Valve

(*From Page* 48)

least expensive propellant now on the market.

Starting with the idea of rigid metal or plastic auxiliary chamber added to the standard metering valve, Risdon's technicians developed the synthetic rubber auxiliary chamber as the solution to the problem of how to use nitrogen and other non-soluble propellants with a metering valve.★

Aerosols in Norway

(*From Page* 23)

hagen are kept busy.

As for the future, Mr. Holm sees good consumer markets for aerosol colognes and perfumes, toothpastes, and food products (particularly whipped creams and dessert toppings). One recent development, nitrogen pres-

Some of the early Rotheim-Mortensen aerosols, after a shelf life of 21 years. Included in this group are a paint, an insecticide, and a ski wax.

sured vitamin liquids, is already being filled in Aerosol Fylling's Oslo plant. "In Northern Europe there is considerably less sun than in many of the other countries in the Northern Hemisphere, consequently we have need for more vitamins. However, since vitamins are produced in such large quantities and through advanced technology in Northern Europe, they are considerably cheaper than in the U. S. or in most other countries in Western Europe. For instance, the Norwegian aerosol product (more or less the equivalent of the U. S. product introduced early last year) will retail for the equivalent of $2.50—as against a dollar or so more for the U. S. product."

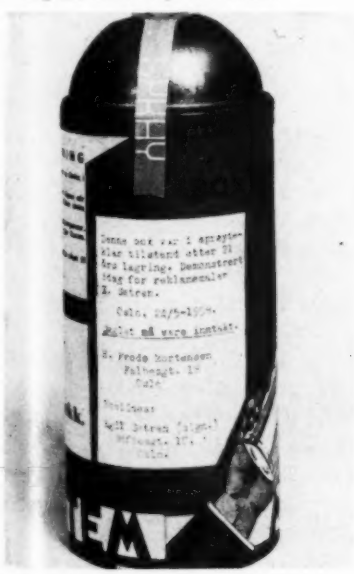
Since Aerosol Fylling is the only custom filler in Norway, its laboratory is called on to do considerable reformulation, shelf testing, and other basic and advanced aerosol research. It is equipped with the latest in laboratory filling and crimping machinery, and its personnel are well qualified to advise the potential marketer on components and raw materials from all over the U. S. and Europe.★

•

Coutin Associates Moves

Coutin Associates, New York perfuming material supplier, has moved to 118 East 28th Street, New York 16. Telephone number of the new office is MUrray Hill 3-9057.

This Norwegian paint product was packaged in 1937! Visible at top is the valve, which is actuated by turning the entire top of the can.



Lehn & Fink

(*From Page* 18)

these specifications define how the product is to be filled, exact quality control methods, and other pertinent data.

The key men in Lehn & Fink's aerosol development seem extremely optimistic about more recent aerosol developments. According to Mr. Taylor, the nitrogen package will assume more and more importance in the company's plans because of its many creams and lotions now in conventional packages. "If there is a need to have the product delivered in its conventional form (and I think this is essential for lotions and creams), the nitrogen packages offer the most practical possibilities."

Queried about what he considers the important aspects of aerosol packaging and development, Mr. Taylor sugested that one of the critical areas is shelf testing. "Given the basic information from the suppliers of the various package components and raw materials," he declared, "it is possible

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to roughly estimate probably shelf life. Actually, the only sure way to market a product is to test package it and then test it under accelerated and normal conditions for at least six months. In our laboratory we test samples at room temperature, 105°, and 130° F., since we have found from experience that it is extremely unwise to sidestep any of these tests."

This sound approach to all phases of aerosol development should keep Lehn & Fink well in the forefront of the aerosol cosmetic and proprietary drug fields.★

•

Rohm & Haas to Canada

Rohm and Haas Chemical Co. of Canada, Ltd., manufacturers of insecticides, fungicides, resins, and other products, has purchased a 210-acre site at Morrisburg, Ont. for erection of a new $2-million plant.

National Packaging Show

(*From Page* 35)

Amphitheatre, Donovan Hall, is being combined with the Exposition Hall and South Hall to accommodate the show, one of the nation's largest annual industrial expositions.

The exposition will be on view for a total of 41 hours. The show schedule is as follows: Monday, April 13, 10 a.m.-6 p.m.; Tuesday, April 14, 10 a.m.-9 p.m.; Wednesday, April 15, and Thursday, April 16, 10 a.m.-6 p.m.; and Friday, April 17, 10 a.m.-4 p.m.

To enable business executives to attend both the show and the conference without conflict of hours, the latter will be in session only in the mornings. It will open at 10 a.m. Monday, April 13. Meetings will begin at 9:30 a.m. Tuesday and Wednesday. All three days the conference will end at 12.

The growing interest being shown in packaging by industrial top management will receive special recognition in the conference program, whose roster of speakers includes half a dozen presidents, and is expected to be demonstrated in the exposition attendance. More than 4,000 presidents, owners, partners, and directors were among the visitors to the 1958 packaging show at the New York Coliseum.

Registration fee for the exposition will be $2, payable only at the show registration desk. However, registration tickets may be filled out in advance. They may be obtained from the exposition management, Clapp & Poliak, Inc., 341 Madison Avenue, New York 17, or from exhibitors.

Packaging conference registration is open to both members and nonmembers of the American Management Association. Fees to members are $18 for the entire conference or $7 for an individual session; for nonmembers, $24 and $10. Those attending the conference may register either in advance or at the door. Registration blanks may be obtained by writing to the Packaging Division, American Management Association, 1515 Broadway, Times Square, New York 36, N. Y.

Conference registrants will be admitted to the exposition without any additional registration fee. Exposition badges, however, will not be valid for the conference sessions.★

International Laboratory

(*From Page* 28)

country he is interested. Also the laboratory will be able to interpret regulations, find a distributor, or help out with the actual formulation of the product.

Since the laboratory will be so closely involved with both U. S. and European aerosol techniques, Dr. Meurisch and other members of his staff will make periodic trips to the U. S. and to European aerosol plants to stay informed about advanced technological knowledge.

Naturally, one obvious job of the new laboratory will be to iron out language difficulties in Europe. Since the aerosol industry readily crosses political and language boundaries, and is rapidly spreading to all corners of Europe, the importance of the laboratory is expected to grow with it.★

New Aerosol Patents

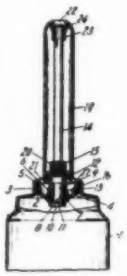
Listed below is a brief review of recent patents pertinent to the aerosol and related industries.

Complete copies of these patents may be obtained by writing to the publisher of this magazine, Aerosol Publications, Box 31, Caldwell, N. J., and remitting 50c for each copy desired. For orders received outside of the United States the cost will be $1.00 per copy.

2,868,419. PRESSURIZED CONTAINER CLOSURE. Issued Jan. 13 to William D. Casey, Jr. Memphis, Tenn.

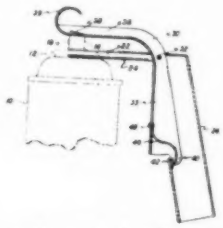
A closure for pressurized dispensing containers of the type including an upstanding, swingable valved discharge nozzle, said closure comprising: a cap mounted on the container and encircling the nozzle, and a substantially inverted U-shaped guard rising from said cap and forming an open frame straddling the nozzle and exposing the nozzle at opposite sides of the frame for access to the nozzle at one side of the frame to swing said nozzle out of the other side of the frame, the bight portion of said guard having a recess therein for the reception of the free end portion of the nozzle and closing said end portion.

2,870,767. PRESSURIZED DOUCHE APPLICATOR. Issued Jan. 27 to Max E. Bowen, Wixom, Mich.



As an article of commerce, a container of medicated fluid compounded for internal application to the human body, a tiltable valve closing said container and operative when tilted to release fluid therefrom, said fluid being under pressure in said container, a tubular guard threadedly engaged with the valve exteriorly of said container, and an elongated extension on said valve and projecting as a nozzle outwardly through said guard, the outer end of said guard forming a hole opening to said nozzle and laterally supporting the outer end of said nozzle.

2,868,421. ATTACHMENT FOR SPRAY CONTAINERS. Issued Jan. 13 to Gaylord A. Schott, Redlands, Calif.



A device for use in handling and dispensing fluid material from a container having a collar and a valve assembly extending above the collar, comprising a hollow pistol grip handle having a cut-out portion extending from one longitudinal extremity thereof, an elongated flexible collar grip connected to the pistol grip handle in substantially perpendicular relationship and having channeled sides for gripping the collar, the collar grip having openings in the top and bottom extending from the extremity thereof to permit the collar grip to be inserted over the collar of the container without interfering with the valve assembly, a hand-operated channel-shaped lever pivotally mounted to the collar grip and having a trigger portion thereof disposed within the cut-out portion of the pistol grip handle, said portion disposed within the cut-out having an extension member beyond the cut-out portion and within the hollow of the pistol grip handle, the lever also extending through an opening in the collar grip, the lever being bent at a point above the collar grip and extended substantially parallel to the collar grip and adapted to operate the valve assembly in response to actuation of the trigger portion, a recessed indexing detent in the lever adapted to fit over the top portion of the valve assembly, and an elongated spring member having one end mounted within the trigger portion and the other end extending into the pistol grip handle and against an inside surface thereof for biasing the lever to partially overcome the spring tension of the valve assembly to maintain the top portion of the valve assembly firmly seated in the indexing detent.

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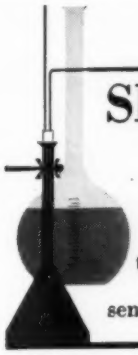

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North Walnut St., Madison, Wis.

Memo:

Have we ordered the new book on aerosols—"Pressurized Packaging (Aerosols)" for our research department?

A handy order form appears on page 68 of this issue.

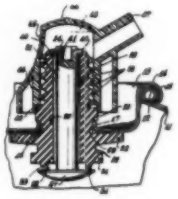
2,868,657. SILICONE COATING COMPOSITIONS. Issued Jan. 13 to Louis M. Sesso, Racine, Wisc., assignor to S. C. Johnson & Son, Inc., Racine, Wisc.

A surface finish composition consisting essentially of an organopolysiloxane having predominately a combination of substantial amounts of both methyl and ethyl groups attached to the silicon atoms of each organopolysiloxane molecule, said organopolysiloxane having a viscosity of between about 20 and about 15,000 centistokes at 25° C., a liquid organic solvent entirely miscible with said organopolysiloxane having an aniline point between about 50° F. and about 185° F. and a distillation range of between about 190° F. and about 460° F., and a wax in a quantity up to about 10 parts by weight per each part by weight of polysiloxane, the ratio of said solvent to said wax and said polysiloxane being such that the solvent functions as a mutual solvent-dispersant for the polysiloxane and wax permitting said composition to be readily applied to surfaces in thin evenly distributed films.

2,868,691. SELF-PROPELLING COMPOSITIONS FOR INHALATION THERAPY CONTAINING A SALT OF ISOPROTERENOL OR EPINEPHRINE. Issued Jan. 13 to Irving Porush and George L. Maison, Los Angeles, Calif., assignors to Riker Laboratories, Inc., Los Angeles, a corporation of Delaware.

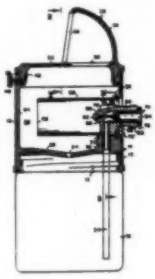
A self-propelling pharmaceutical composition capable of providing a medicament in aerosol form suitable for inhalation therapy, comprising as the medicament a water-soluble acid-addition salt of a bronchodilator amine selected from the class consisting of isoproterenol and epinephrine, said medicament comprising between 0.1% and 2% of the composition, as a co-solvent for said medicament, an aqueous ethanol mixture in an amount comprising between about 20% to 40% of the composition, the water in said cosolvent comprising between about 1.5% and 2% of the total composition, and as a liquefied non-toxic propellant component a halogenated lower alkane containing at least 1 fluorine atom and not more than 2 carbon atoms and having a vapor pressure of between about 20 and 65 pounds per square inch gauge at 70° F., said liquified propellant component comprising substantially the remainder of the composition.

2,869,764. SELF-CLOSING VALVE CONSTRUCTION FOR A PRESSURIZED CONTAINER. Issued Jan. 20 to Leonard M. Collings, assignor to Pressure Dispensers, Inc., Beverly Hills, Calif., a corporation.



In a dispensing valve for a pressurized container, the improvement which comprises: a generally cylindrical resilient unitary body member of longitudinal compressibility comprising a grommet portion having an annual groove defined by annular flanges on said resilient body, said flanges retaining said body member mounted in, and said groove in engagement with, an opening in said container, said body member having an elongated portion located outside the container and a portion located inside the container, said elongated portion comprising spaced circumferential grooves therein defining spaced circumferential ribs, thereby defining a bellow-like portion, said body member having a bore therethrough and a valve seat comprising an annular bead projecting axially toward the inside of said container; a rigid valve member having a stem extending slidably through said bore and free for limited lateral movement in relation to said resilient body member to define a pasageway between said stem and said bore, said valve member having a head adapted to engage said valve seat, said valve member having at least one generally radial laterally projecting ear member, said ear member being so shaped as to provide a permanent opening from the bore to the exterior of the container, said ear being integral with said stem, in engagement with the upper end surface of the resilient body, and having a radial dimension greater than the radius of said bore at the outer end thereof, the normal uncompressed length of said resilient body member between said seat and said ear member being greater than the length of said valve member between said head and said ear member; whereby said head is normally held resiliently against said seat and is movable away from said seat upon tilting of said grommet portion of the resilient body and expansive longitudinal force of said compressed body member is exerted only on said valve head and ear member providing a self-closing valve structure.

2,869,188. MEDICINAL INHALANT ATOMIZATION. Issued Jan. 20 to Leon Robert Cameto, Oakland, Calif., assignor to Misto-Gen Equipment Co., Oakland, a corporation of California.



A device for atomizing and mixing a medicinal liquid with a breathable gas comprising: a first nozzle having a cylindrical, open-ended bore, a supply of liquid at atmospheric pressure, and means connecting said liquid supply with the inlet end of said bore for conducting said liquid to said inlet end, a second nozzle including a hollow, cylindrical tube of smaller outside diameter than the inside diameter of said bore projecting into said bore through said inlet end and terminating in an open discharge end a predetermined fixed distance short of the discharge end of said bore, said tube being formed to a constant cross section from a point spaced rearwardly of said inlet end of said bore to said discharge end of said tube and concentric with said bore for forming an annular space adjacent said inlet end of said bore, a supply of gas under pressure greater than atmospheric, and means connecting said gas supply and said tube for conducting said gas through said tube in the direction of said discharge end thereof, whereby exit of said gas from said discharge end of said tube aspirates said liquid through said annular space in the form of a hollow, cylindrical tube of liquid and atomizes said liquid, by expansion of said gas at said discharge end, into droplets the large majority of which are of very small particle size and thoroughly mixed with said gas, and a tertiary, hollow tubular nozzle concentric with first nozzle and with the latter firing toward one open end of said tertiary nozzle, the other end of said tertiary nozzle being open to ambient atmosphere.

•

Rexall Buys English Firm

Rexall Drug Co., Los Angeles, recently announced the purchase of Carnegies of Welwyn, Ltd., English manufacturer and exporter of fine chemicals.

bio-assay
INSECTICIDE AEROSOL

- *formulation performance*
- *label claims*
- *mammalian toxicity*

WISCONSIN ALUMNI RESEARCH FOUNDATION
INSECTICIDE TESTING LABORATORY
P. O. BOX 2217-DD
MADISON 1, WIS.

CLASSIFIED ADVERTISING

Rates for classified advertisements are ten cents per word, $2.00 minimum, except those of individuals seeking employment which *Aerosol Age* will run without charge. Check must accompany all classified advertisements. Address all replies to Classified Advertisements with Box Number, care of *Aerosol Age*, Box 31, Caldwell, N. J. Closing date: tenth of month preceding month of issue.

SITUATIONS WANTED

CHEMICAL ENGINEER — D. Ch. E., experienced in properties, analysis, and handling of propellants; supervision of laboratory; aerosol formulation; trouble-shooting plant problems; training of company personnel; preparation of trade literature, technical brochures, and other sales aids; liaison between sales and manufacturing, research, and engineering departments. Married, family, presently employed. Desire position with challenge and opportunity for advancement. Address Box 176 c/o Aerosol Age.

FOR SALE

USED EQUIPMENT FOR SALE—Mojonnier-Dawson IM-30 with Alpha Double Cylinder/Crimper, No. 3 Tri-Homo Dispenser—Stainless Heads, No. 2 Tri-Homo Dispenser—Stainless Heads, 12,000 Gal. Lithcote Lined Tank 15 PSI D. W. P., Cowles Co. Dispenser, Hydraulic Lift, 5 H. P.; 200 Gal. Pressure Vessels, Identical to One Ton Freon Shippers, Vertical 1200 Gal. Pressure Vessel, A. S. M. E. 150 PSI with steam heating element; Horizontal 600 Gal. Lithcote Line ASME 150 PSI with steam heating element; #4x Proportioneer Metering Pump, Wallace Company, 41 California Street, Bridgeport, Conn.

EQUIPMENT FOR SALE—Leak test (hot water bath) complete and ready for use. Complete with variable speed drive (explosion proof). Also feed out turns. Dependable. Has been in continuous operation for two years. Phone or write Mr. Rue, VIctory 2-0660 or I. B. P. Co., 2023 S. Clark St., Chicago 16, Ill.

Dunaway Officials Realigned

As a result of the recent acquisition of Judson-Dunaway by the Drackett, Co., Cincinnati, the following executive changes were announced late last month: Samuel Knox, formerly president of Judson Dunaway, was named executive vice-president in charge of sales for Drackett Products Co. Eugene Jalbert was appointed assistant to the president of Drackett Co., Don McDaniels to assistant controller, and George L. Jaques, production manager. Stanley Manning was named eastern regional sales manager for Drackett Products Co. Both Drackett and Judson-Dunaway market aerosol products.

Cynamid Appoints Hunt

American Cyanamid Co., New York, has named E. K. Hunt to the newly-created post of merchandising manager for the company's Plastics and Resins Division. For the past three years he has been division sales manager, prior to which he served as company public relations manager.

•

British Co. Honored

New Hygiene, Ltd., London British marketer of "Quiff" and "Wham" aerosol products, has been awarded the certificate of the Royal Institute of Public Health and Hygiene for its products' purity, quality and merit.

SCC Head Names Committees

Theodore Ostrowski, chief chemist of Germaine-Monteil, and 1959 chairman of the New York Chapter of the Society of Cosmetic Chemists, recently announced a list of committee chairman to serve during the current year.

PROGRAM: Arthur J. Cohane, Leberco Laboratories.
HOUSE: Robert B. Warfield, Bristol-Myers Co.
MEMBERSHIP: Irving Colbert, Malmstrom & Co.
PUBLICITY: Irving Klapp, Pharmceuticals Inc. & J. B. Williams Co.
EDUCATION: Robert J. Schiraldi, Colgate-Palmolive Co.
ENTERTAINMENT: George Kachajian, Dow Corning Corp.
BY-LAWS: Nicholas J. Accousti, R. H. Macy & Co.
HOSPITALITY: Jean W. Baer, Pennsalt Chemicals Corp.
INTERPROFESSIONAL RELATIONS: Martin Rieger '59, Warner-Lambert Research Institute.
Herbert Edelstein '60, Bonat & Bonat, Inc.
EX OFFICIO: Harry Isacoff, Van-Ameringen-Haebler, Inc.

Mr. Ostrowski, who was officially installed at the SCC's year-end meeting, is a charter member of the New York Chapter, having served as its treasurer in 1955, 1956 and 1957. Before joining Monteil he was active in the pharmaceutical and cosmetic industry for twenty years.

Besides being a member of the National Society of Cosmetic Chemists he is a member of the Chemists Club.

Other officers elected to serve the New York Chapter during 1959: chairman-elect, John Longfellow, Colgate-Palmolive Co.; secretary, Saul Bell, Prince Matchabelli; treasurer, Martin Katz; Revlon, Inc.

Competition Getting Tougher?

Your advertisement in this space will be widely seen throughout the packaging, cosmetic, food, pharmaceutical, pain and insecticide industries.

HAVE YOUR PRODUCT PACKED IN AEROSOL DISPENSERS BY: Scranton Aerosol Packaging

NEWEST FACILITIES:
The most modern in the industry, with consistent quality control. Production: 45,000 units per shift.

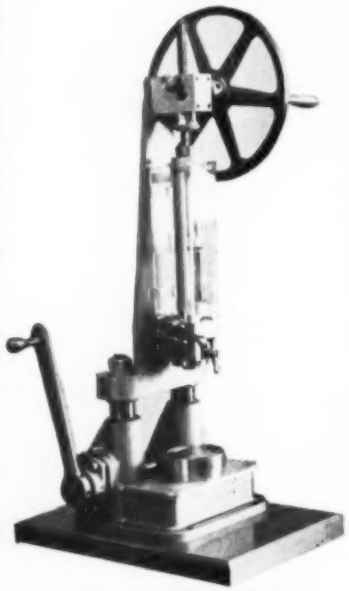
NEWEST PROPELLANTS:
Freon, isotron, genetron, ucon, and butane are some of many available. Highest quality guaranteed.

PERFECT DISTRIBUTION POINT:
40,000,000 consumers within 250 mile radius. Focal pt. of Fed. Hghwy. Program. 100,000 sq ft of storage facilities.

WRITE TODAY FOR FULL PARTICULARS:
Scranton Aerosol Packaging
a div. of: THE SCRANTON CORP. • SCRANTON 9, PA.

DEVELOPED FOR THE CONSULTING LABORATORY, THIS APPARATUS IS THE ULTIMATE IN FUNCTIONAL DESIGN AND PERFORMANCE

Our apparatus division has been set up to make all items available to the industry. Prices and descriptive literature on request.



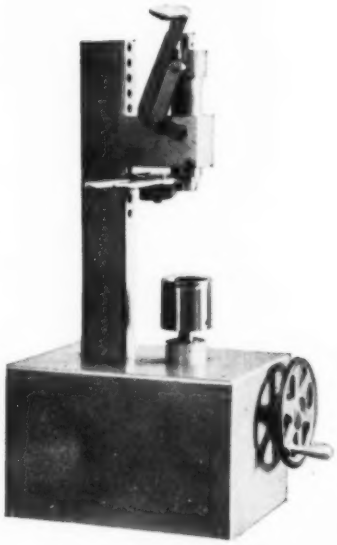
Foresman Liquefied Gas Manipulator

APPARATUS AVAILABLE

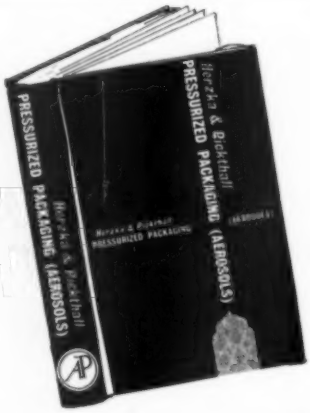
Cont. Filling Corp. Clinch Torque Meter

Liquefied Gas Manipulator w/Universal Head
Propellant Manifold for Manipulator
Hand Operated Vial Capper
Change Parts for Vial Capper
One inch opening Can Closing Press
Hydrostatic Test Units
Karl Fischer Pressure Titration Cells
Dead Stop Indicator for Karl Fischer Titrameter
Density Units
High Pressure Test Bombs
Can Sampling Units — Piercing or Valve Actuating
Pressure Gauging Unit — Pressure Balance or Water Filled
Test Ovens — Standard or Custom Built
Instantaneous Chiller Units—Mechanically Refrigerated
Electric Hot Water Test Bath
Hot Water Bath Transfer Baskets Safety Top Tank Racks
Table Tank Rack Combinations
Safety Screen Tubes for Glass Pressure Tubes
Plastic Protective Screens
Gloves and Masks

Apparatus Division
ROBERT A. FORESMAN, JR.
(Aerosol Consultant)
1690 Margaret Street
Philadelphia 24, Pa.



Foresman Hand Operated Vial Capper



the first aerosol text:

PRESSURIZED PACKAGING (Aerosols)

by A. Herzka and J. Pickthall

price $12 in U.S.A.

114 Illustrations **424 Pages**

A new book on aerosol packaging by two British authorities, dealing with: propellants, containers, valves, filling methods, laboratory procedures, emulsified systems, and perfumes.

Contains a complete section, with more than 200 formulations covers foods, insecticides, cosmetics, paints, medicinals, hair preparations, space deodorants, etc.

The text is published in New York by Academic Press, Inc. and in London by Butterworths Scientific Publications.

Send Check With Order

AEROSOL AGE
P. O. Box 31
Caldwell, N. J.

Enclosed is our check for $12.00 (Foreign and Canada $12.50), covering a copy of PRESSURIZED PACKAGING (AEROSOLS). It is understood that we may return the book in ten days for a full refund.

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Address .....

City..... Zone..... State.....

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TGA Changes Convention Policy

A policy of holding conventions in odd numbered years in New York City and in even numbered years out of town has been voted by the board of directors of the Toilet Goods Association. The 1959 convention will be held May 12-14 at the Waldorf-Astoria Hotel in New York, and the 1960 convention will be held at the Poland Spring House, Poland, Maine, June 27-29, 1960.

•

Parke, Davis Names Meyer

Norwood H. Meyer has been named director of market research and development for Parke, Davis & Co., Detroit, major U. S. marketer of vitamins, drugs and pharmaceuticals.

Carter Head to Bank Board

Henry H. Hoyt, president of Carter Products, Inc., New York, has been elected to the board of directors of the Empire Trust Co., New York. Mr. Hoyt's company is the marketer of "Rise" shaving cream and a number of other aerosol and non-aerosol cosmetics, ethical, and proprietary drugs.

OVER THE TRANSOM

THOUGH activity in the pressurized food field continues strong, all is not blissful in certain areas. Last month it was learned that Anderson Foods Division of Hueblein, Menlo Park, Calif., had ordered its food filling operations to be shut down pending further studies of its "Sizzl-Spray" barbecue spray (which, incidentally, was the winner of the CSMA Aerosol Division's "Grand Prize" for package excellence last year). According to our informants, possible reformulation of the product to allow lower filling pressures is one possibility being considered, as well as slight variation in container design to allow for higher filling pressures. The product was being filled at 90 psig, though most conventional tin-plate containers are not guaranteed past 60 psig., and the resulting gas loss (especially at the elevated shelf temperatures encountered in California, Texas, Arizona, and New Mexico during the summer months) was enough to make the container inoperative.

On the credit side of the food picture are the early successes enjoyed by "Tasti-Cup" coffee concentrate, and by reports of test marketing of two new products by General Foods and Nestle. The first of these is "Minute Man" cake frosting concentrate and the second a liquid chocolate product called "Zip."

* * *

Aldo S. Pero, vice-president sales of Fluid Chemical Co., Newark custom filler, is still in Florida recuperating from the illness that kept him from the last CSMA convention. Al is very much missed for his work on the Aerosol Division's Publicity and Product Survey Committees.

* * *

Ever wonder what the largest single selling aerosol brand-name product is outside the U. S.? According to what information we can gather, "Spray-Tan," a sunscreen with distribution throughout Western Europe, is far and away the leader. We have heard estimates ranging all the way from five to ten million for this product.

Alvex A.G., 85 Rue de Courrelles, Paris, is the marketer of this product, which is being custom packaged in almost as many countries as there are custom fillers.

* * *

In January a number of British marketers announced price reductions for aerosol products, and these have been credited to "increased volume production." As of press time Cooper, McDougall & Robertson, Ltd. ("Fly-Killer," "Fresh-Aire," "Crawling Insect Killer, "Moth-Proofer," and "Woodworm Killer"), Secto Co., Ltd. (fly sprays, moth-proofers, and "Astral" air freshener), Boots Pure Drug Co. Ltd. ("Airofectant" air freshener), William Edge & Sons, Ltd., Esso, and Thompson and Capper Ltd. all have announced reductions of about six to 14 cents on five-ounce sizes and about 10 cents on 10-ounce and larger sizes.

Though we are inclined to accept the "increased volume" reason (at least partly), it would appear that increased competition may well be an important factor here. As happened in the U. S. market, supply of certain products has apparently caught up with demand, and we can look for more and more imaginative advertising, special offers to retail grocers and store keepers, and possibly even some over-glorified advertising claims as British production rises in the various leading product categories.

* * *

A familiar figure at CSMA conventions (while Sun Tube was an aerosol valve manufacturer), Claude L. "Bud" Alexander has been promoted to vice-president and general manager of the Bradley-Sun Division of American Can. Bud, who had been vice-president in charge of the division's sales, replaces K. M. Leghorn, who resigned.

* * *

The following is an excerpt from the *Salt Lake Tribune's* humorous events column, "It Happened Around Here":

"When a pan of milk boiled over on the stove, it created quite a smell in the kitchen, so my wife dashed out for the can of pressurized air freshener. When she came back she sprayed ceiling, table, and food, only to discover, too late, that she had mistakenly grabbed a can of hand cream.

Ralph L. Albiston
3341 Elgin Drive
Salt Lake City